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EMERGENCY MANAGEMENT DIVISION
Michigan Department of State Police

Disaster Exercise Manual

Guidelines for Exercising Emergency Operations Plans for Local Goverment

SECTION I

SECTION I

INTRODUCTION

Emergencies and disasters can strike at anytime, causing death, injury, and economic instability. As communities become larger and more interrelated, numbers and types of potential disasters multiply, and their impact is often compounded by technological, social, and political developments of the modern era.

The obligation to respond to emergencies lies, initially, with local government. Local resources are normally closest at hand and can be activated almost immediately. Government's capacity at any level to protect its citizens however, depends directly upon the abilities of large numbers of organizations, individuals, and jurisdictions to act effectively in emergency situations.

This is a difficult task, requiring virtually every public agency and many private groups to coordinate their actions in all four phases of emergency management:

Mitigation
Preparedness
Response &
Recovery

While this process presents a challenging management problem for each organization, it becomes even more complex when all emergency management disciplines join together into one integrated system for managing emergencies.

Obviously, the best way to identify your jurisdiction's capabilities is during an actual event, however it is too late to make necessary adjustments to plans and procedures. By exercising, a community can test, evaluate, and continually improve their emergency management system. Exercises stress performance of both people and organizations and are a measure of the competence of an emergency management program.

This exercise manual is designed to provide the local emergency management coordinator with information vital to achieving a successful exercise program. This manual provides guidance and instructions for local programs as part of a state-wide effort to increase local capability in time of emergency or disaster. This manual is not a replacement for the Exercise Design/Evaluation Course but as a supplement. It is recommended that anyone involved with the development of an exercise, attend the Exercise Design/Evaluation Course.

WHY EXERCISE?

The goal of Emergency Management exercises is to improve operational readiness. Preparation and practice of those responsible for response and recovery from emergencies or disasters, will enhance their ability to save lives, property, and the environment. Through exercise activities, you may:

- reveal planning weaknesses
- reveal resource gaps
- improve coordination
- clarify roles and responsibilities
- improve individual performance
- gain public recognition of the emergency management program
- build the confidence of emergency professionals
- develop proficiency and confidence in participants
- test plans and systems in "live" situations
- enhance community capabilities for emergency management
- foster cooperation among government agencies and private sector resources
- increase general awareness of proficiencies and needs
- help formulate public policy on community readiness posture
- satisfy specific requirements of certain program areas
- demonstrate utilization of the emergency management process

PURPOSE OF EXERCISING

The purpose of exercising is to enhance a community's overall emergency management capabilities through training and assessment. In lieu of actual response activities, comprehensive exercise programs that are progressive in nature provide valuable tools for local programs to train personnel and evaluate operational readiness. Future capability enhancement depends on the application of lessons learned from actual events and exercises. Communities that develop and maintain viable exercise programs will be better prepared for actual events.

Therefore, exercise activities must be flexible and based on the unique needs and capabilities of a community.

1. Exercise program requirements shall be modified to allow for flexible exercise activities that address specific community needs.

2. Annual exercise activities shall be part of a community's overall annual work agreement.

EXERCISE ACTIVITIES

Orientation Exercise

The orientation exercise is considered to be the foundation for emergency management exercises and will lay the groundwork for a comprehensive exercise program.

The orientation exercise is a planned event, developed to bring together individuals/officials with the role or interest in a plan, problem, or standard operation procedure. An orientation activity must have a specific goal (purpose) and written objectives.(purpose) and written objectives.

Drill

The drill is a planned activity that tests, develops, or maintains skills in a single or limited emergency response procedure. Drills generally involve operational response. The drill focuses on a single or relatively limited component of the community's response system, in order to evaluate and improve it.

Tabletop Exercise

The tabletop exercise is a planned activity in which local officials, key staff, and organizations with emergency management responsibilities, are presented with simulated emergency situations without time constraints. It is usually informal, in a conference room environment, and is designed to elicit constructive discussion from the participants as they examine and attempt to resolve problems based on existing plans and procedures.

Individuals are encouraged to discuss decisions in depth and emphasis is slow-paced solving, rather than rapid, spontaneous decision-making.

Functional Exercise

A functional exercise is a planned activity designed to enhance individual and organizational skills required in emergency management. It is also utilized to evaluate the capability of a community's emergency management system, with emphasis on individual function, or complex activity within a function. It is based on a simulation of a realistic emergency situation that includes a description of the situation (scenario), a master sequence of events list(MSEL), and communications between players and simulators.

The functional exercise gives the players a fully simulated experience of being in a major emergency event. It should take place at the appropriate coordinating location (i.e., EOC, ECC, CP, MCC, etc.)

Full-scale Exercise

A full-scale exercise is the culmination of an exercise development program that has grown with the capacity of the community to conduct exercises.

A full-scale exercise is a planned activity in a "challenging" environment that encompasses a majority of the emergency management functions.

The appropriate facility(ies) is/are activated to provide coordination and support. This type of exercise involves the actual mobilization and deployment of the appropriate personnel and resources to demonstrate operational abilities.

REASONS FOR CONDUCTING THE FIVE ELEMENTS OF A COMMUNITY EXERCISE PROGRAM

ORIENTATION	DRILL	TABLETOP	FUNCTIONAL	FULL-SCALE
No previous exercise	Equipment capabilities	Practice group problem-solving	Evaluate and function	Information analysis
No recent operations	Response time	Executive familiarity	Observe physical facilities use	Interagency cooperation
New plan	Personnel Training	Specific case study	Reinforce established policies and procedures	Policy formulation
New procedure	Interagency cooperation	Specific risk area	Hospital preparedness	Negotiation
New staff, leadership	Resource and manpower capabilities	Examine manpower contingencies	Test seldom-used resources	Resource and manpower allocation
New nuclear facility		Test group message interpretation	Measure resource adequacy	Media attention
New industrial risk		Observe information sharing	Inter-jurisdictional relations	Equipment capabilities
		Assess inter-agency coordination		Personnel and equipment locations
		Train personnel in negotiation	Inter-jurisdictional relations	

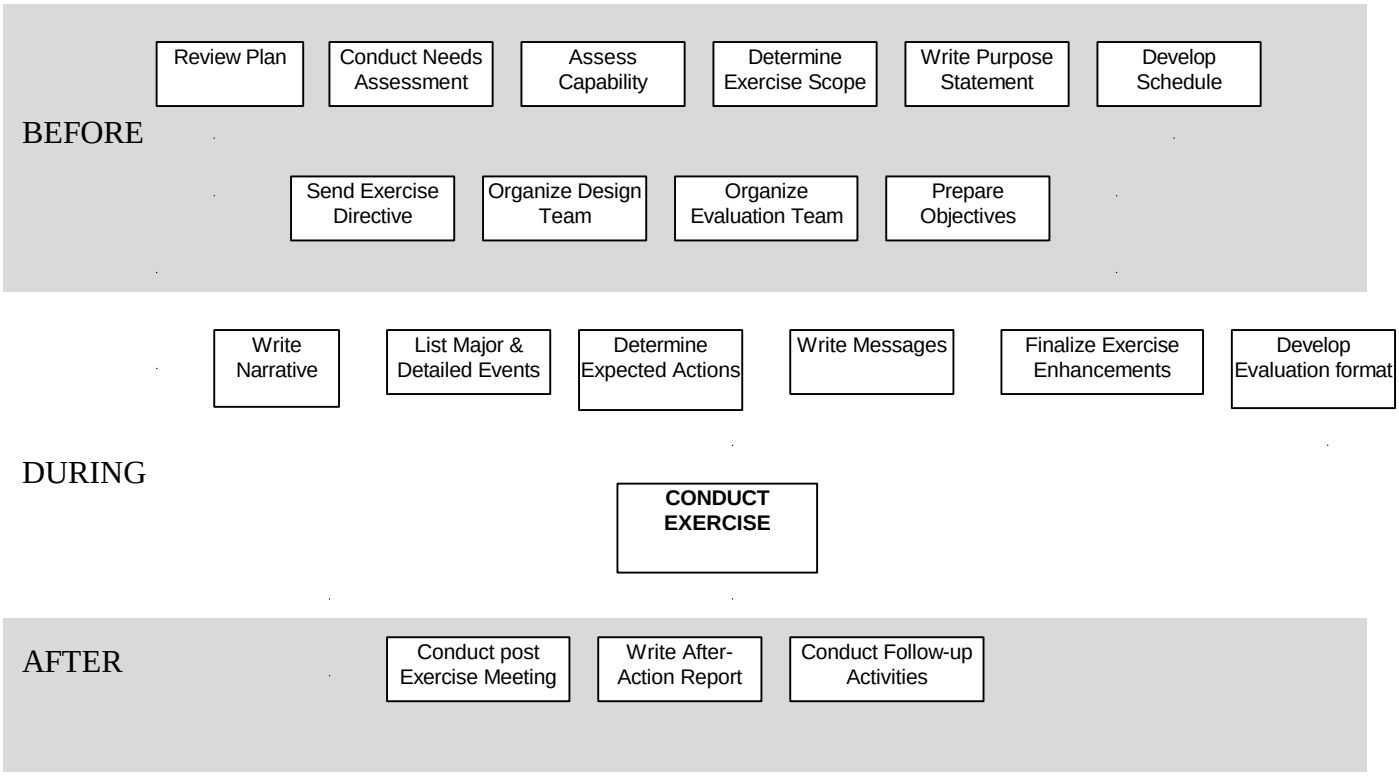
EXERCISE DEVELOPMENT PROCESS

In preparation of providing a meaningful and realistic exercise activity for participants, planning is an important element of the responsibility of the local emergency coordinator. It is therefore necessary to complete the main tasks that will be addressed in the developmental process.

This first chart shows the tasks in a sequence order from beginning to end:

SEQUENCE OF MAIN TASKS One graphic portrayal shows the main tasks in their approximate sequence. This chart helps most people get a good mental picture of the entire sequence and is a good place to start in creating a more detailed schedule of tasks.

SEQUENCE OF TASKS FOR A SUCCESSFUL EXERCISE



EXERCISE PHASES

The tasks are separated into three (3) specific exercise phases with design and the evaluation tasks:

- Before the exercise
- During the exercise
- After the exercise

PRE-EXERCISE PHASE	EXERCISE PHASE	POST-EXERCISE PHASE
DESIGN		
+Review Plan +Assess Capability +Address Costs and Liabilities +Gain Support/Issue +Exercise Directive +Organize Design Team +Draw up a Schedule +Design Exercise (8 Design Steps)	+Prepare Facility +Assemble Props and other Enhancements +Brief Participants +Conduct Exercise	
EVALUATION		
+Select Evaluation Team Leader +Develop Evaluation Methodology +Select and Organize Evaluation Team +Train Evaluators	+Observe Assigned Objectives +Document Actions	+Assess Achievement of Objectives +Participate in Post-Meetings +Prepare Evaluation Report +Participate in Follow-up Activities

Note: Not all exercise activities will require all of the tasks above or in sequence of order.

1. Review of the current Emergency Operations Plan (EOP)

The following are questions that may surface after a thorough review of the plan by the local emergency management coordinator:

What responses are currently planned?
What resources, personnel, and procedures will be used to resolve problem?
Are they different for various types of emergencies?
Do roles vary according to type of disaster?
What training have personnel experienced?
What training is needed and necessary?

2. Assessing Capability and Resources

When was your organization's last exercise?
What exercise experience is available in your community, including yours or your staff?
How much preparation time can you allocate to developing an exercise, for your time and time of the exercise?(In days)
How about time of others who would assist you from inside and outside your organization?
What skills can others provide you?(Planning, logistics, promotion, materials, scenarios, etc.)
What is used for the exercise and is it available?
What communications devices are available for the exercise?
What attitudes do you expect from the Chief Elected Official (CEO) and department heads?

3. Addressing Costs and Liabilities

Is your jurisdiction covered by insurance when performing an exercises?
Is there a possibility of injury or damage to equipment during the exercise?
Are there safety procedures formulated and in writing for these types of activities?
What will be the cost of planning, conducting, and evaluating the exercise?
Is this exercise being planned for normal staff salaries?
How is the cost of equipment, materials, contract services, and miscellaneous items covered?
Will the exercise require additional fuel or transportation costs?
Will agencies be expecting reimbursement for expenditures of resources?
Can the costs be covered by a private source of funding?(Hospitals, airports, refineries, etc.)

4. Gaining Support: The Exercise Directive

Have you discussed the exercise with the CEO and secured his/her support?
Did you prepare a document that outlines the need and requirements for an exercise?
Did you address the capability of your community to conduct an exercise?
Did you discuss the type of exercise, who was to be expected to participate?
Did you provide the name of the person charged with the design of the exercise?
Did you discuss possible dates that would not conflict with other governmental business?
Did you provide the name of the contact person for the exercise?
Did you submit a sample "draft" directive for review and signature?

A written directive, signed by the CEO, will allow notification to all agencies of the pertinent information and provide support and direction.

Sample Exercise Directive

February 23,19xx

TO: All Agency Directors
FROM: ROBERT W. WILLIAMS, Chief Administrative Officer
SUBJECT: Disaster Exercise

A simulated disaster exercise in a simulated flash flood has been scheduled for some time in the week of May 11-18,19xx.

The purpose of the proposed exercise is to improve the following emergency operations:

1. Flood stage monitoring
2. Evacuation warning
3. Relocation of school children
4. Shelter management

It is important that your agency participate in this exercise. We encourage involvement at the highest level.

I believe we all realize the importance of emergency exercises as a means to community preparedness. I fully support this exercise and intend to join with you in participating.

The Emergency Management Office will be coordinating the exercise. They will be contacting you to make necessary arrangements for the development and conducting of the disaster exercise. For purposes of realism and interest, details of the exercise situation will not be made known prior to the exercise.

For further information, call Tom Smith at EXT 1234.

5. Organizing a Design Team

Orientation exercises are normally planned, conducted, and evaluated by local emergency management coordinators. However for tabletop, functional, and full-scale exercise activities, a design team formation is strongly encouraged. Especially, in functional and full-scale exercises, the emergency management coordinator should be a player in the exercise, no different than a department head.

Unfortunately, circumstances prevent some emergency management coordinators the freedom to totally be absolved from the process.

When possible, a design team leader could be selected to "manage" the exercise by assuming the administrative and logistical issues needed. Therefore:

Does the design team leader have the experience and capability to conduct your exercise?
Do they have the time to devote to the complete process?
Are they familiar with the EOP and your emergency management system?
Are you selecting them from inside or outside your organization?
Will they be selecting the design team with your assistance?
Are you using specific representatives of the involved agencies to assist in the design of the exercise?
Will they have the administrative and technical support for the exercise?

6. A Collection of Job Aids

Job aids are ways of organizing and tracking time and tasks so tasks are completed and on time. These normally involve checklists and time schedules. Depending on the type of exercise activity, the following checklists may assist you in keeping track, for a successful exercise.

Exercise Development: A Checklist

The checklist below includes most of the tasks necessary in carrying out an exercise from start to finish. It is intended as a guide for the construction of your own checklist, not a final statement. Adapt these items or use them as reminders.

Mission
- ☐ Needs Assessment
- ☐ Scope
- ☐ Statement of Purpose

Personnel
- ☐ Design Team Players
- ☐ Controller or Facilitator
- ☐ Simulator(s)
- ☐ Evaluator(s)
- ☐ Management
  - ☐ Safety
  - ☐ Observers

Information
- ☐ Directives
- ☐ Media
- ☐ Public Announcements
- ☐ Invitations
- ☐ Community Support
- ☐ Timeline Requirements

Training/Briefings
- ☐ Train Simulators, Evaluators, Controllers
- ☐ Pre-exercise Briefing Players

Date Accomplished:

_____

Scenario
- ☐ Narrative
- ☐ Major/Detailed Events
- ☐ Expected Actions
- ☐ Messages

Logistics
- ☐ Safety
- ☐ Scheduling
- ☐ Rooms/Location
- ☐ Equipment
- ☐ Communications
  - ☐ Phones
  - ☐ Radio
  - ☐ Computers
- ☐ Enhancements
  - ☐ Maps
  - ☐ Charts

  etc.

Evaluation
- ☐ Methodology
- ☐ Locations
- ☐ Evaluation Forms
- ☐ Post-exercise Debrief

After Action Documentation/ Recommendations
- ☐ Evaluation Meeting
- ☐ Evaluation Report
- ☐ Follow-up Ideas for Next
- ☐ Exercise

Schedule for Leader and Team

The chart below outlines possible responsibilities and deadlines for a tabletop exercise. The duties and schedule are suggestions only.

Deadline for Completion	Leader Activities	Team Activities
3 months prior	• Hold initial planning meeting	
2 1/2 months prior	• Brief government officials • Arrange for facilities • Determine simulation structure • Convene and brief design team	• Attend director's briefing
2 months prior	• Review and finalize scenario	• Develop/review exercise procedures • Arrange simulation • Arrange participation • Review exercise scenario
1 1/2 months prior	• Obtain exercise materials • Prepare ideas for scripted messages	• Prepare participant information packet • Prepare operational data
1 month prior	• Review messages with team	• Review messages with director • Review evaluation forms • Print forms • Prepare scripted messages
3 weeks prior	• Prepare briefing for participants	
2 weeks prior schedule		• Integrate messages into time • Develop training sessions
1 week prior	• Prepare exercise facility	
2-4 days prior	• Conduct training session • Train supervisors	• Assist in training sessions
Day of Exercise	• Conduct participant briefing • Perform pre-exercise check • Supervise the exercise	• Assist with pre-exercise check
1 week after	• Help prepare draft of final report	• Review final report and make suggestions
2 weeks after	• Revise and submit report	
3 weeks after	• Submit recommendations	

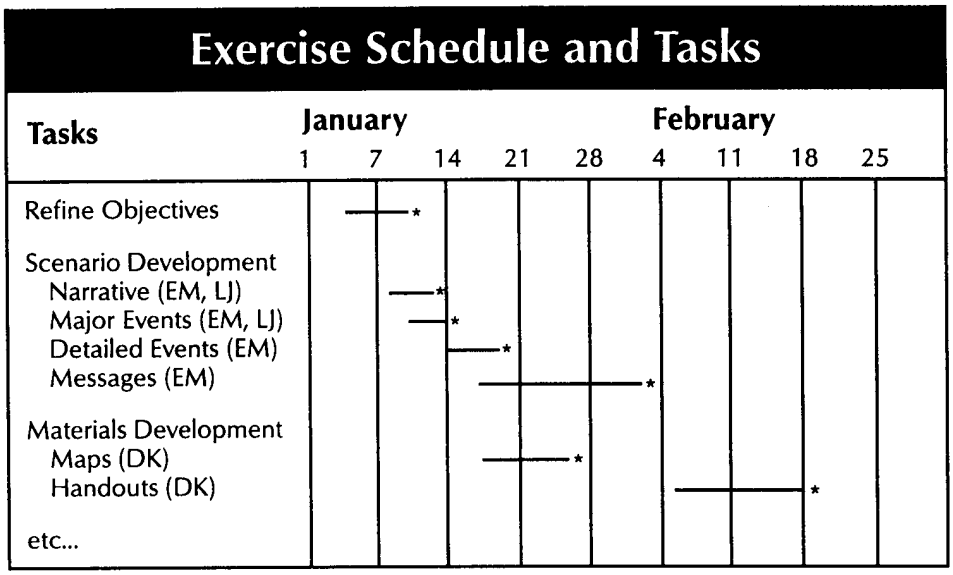
Scheduling Tasks

For relatively simple exercises, a schedule somewhat like that on the previous page might suffice. However, many people prefer a more detailed plan, which is a must for a major exercise. Such an exercise must be planned with the thoroughness of any major organizational effort. Two of the most useful scheduling tools are shown below: the Gantt Chart and a Work Plan.

Gantt Chart

A Gantt Chart displays time across the top and a sequence of tasks down the left-hand side. The duration of time devoted to an activity is represented by bars extending along the time lines. Tasks can be grouped as illustrated, with supporting sub-tasks also scheduled.

The allocation of staff can be indicated by names or initials in the left column, as illustrated. Time can be given in days, weeks, months.



Work Plans

The work plan can be used alone or with the Gantt chart. It sets out in brief narrative format exactly what will be accomplished through a period of time.

Sample Exercise Work Plan

Jones County Proposed Date of Exercise: January 1996

June 1995	Study and update local Hazard Analysis; Study and update local resource availability listings.	Check with local agency heads.
July 1995	Meet with local officials to assist in determination of exercise needs; gain approval/support of local officials (can be accomplished via briefing of local officials).	Check with State Emergency Office for possible assistance where necessary; Check with NOAA
August5, 1995	Determination of exercise type in concert with local officials.	
August 10, 1995	Initial exercise objectives set; copies sent to appropriate agency heads to gain concurrence; suspense date for return set.	Coordinate with agency heads for those agencies participating.
August 14, 1995	Return of exercise objectives from apropos agency heads; meet with governing officials to set date(s) for exercise.	Coordinate with agency heads.
Sept. 1, 1995	Prepare rough draft of major sequence of events based upon finished objectives; mail out draft to apropos officials. Major sequence draft returned and revised. Appoint exercise design committee over signature of local governamental officials. Organize committee meetings to design exercise; exercise package completed; schedule positional instruction, etc.	If appropriate, ensure State Emergency Management Office approval and or workman's compensation approvals are complete. Obtain exercise design "go-ahead" from officials; set committee meeting date.

REQUIREMENTS FOR AN EXERCISE ACTIVITY

Participants (Players)

Determining who should participate in an exercise should be determined by the emergency operations plan (EOP). Normally, the participants would be selected from personnel (not alternates) and decision-makers that are responsible for conducting emergency/disaster operations for the community. The inclusion of alternates is sometimes necessary and understandable. The type of exercise activity and the personnel with their resources available, will provide guidelines for additional staffing and support. (More details will be provided in the Design Steps process). Basically, the larger the exercise activity, the more commitment of the communities resources are needed. In general, however, the commitment by a community to conduct an exercise should include commitment from the appropriate staff members to participate in the actual conduct of the exercise.

The following list includes departments and agencies that could be included in exercises:

Attorney's Office
Community Affairs
Crisis Intervention
Dept. of Highways
Management and Finance
Electric (Power)
Emergency Management
Fire/Rescue
Hospital
Mass Transportation
Public Information
Public Works
Red Cross
Sheriff's Dept.
State Police
Volunteer Bureau
Building Department/Planning Department
Chief Executive's Office
Environmental Protection
Human Services
Personnel
Emergency Dispatch (9-1-1, etc.)
Emergency Medical Services
Gas Company
Health Dept.
Police Dept.
Public Schools
RACES
Railroad
Shelter Manager
Telephone Co.
Water Co.

Controllers, Simulators, and Evaluators

Controllers

The controller's role is to supervise the simulation or overall conduct of the exercise, to make certain that the exercise proceeds as planned and objectives reached. The controller monitors the sequence of events and supervises the input of messages.

Simulators

Simulators "act as", and in behalf of, the agencies and services which would normally interact with the players in the EOC. The method of interaction is normally prescript messages and/or spontaneous responses.

Evaluators

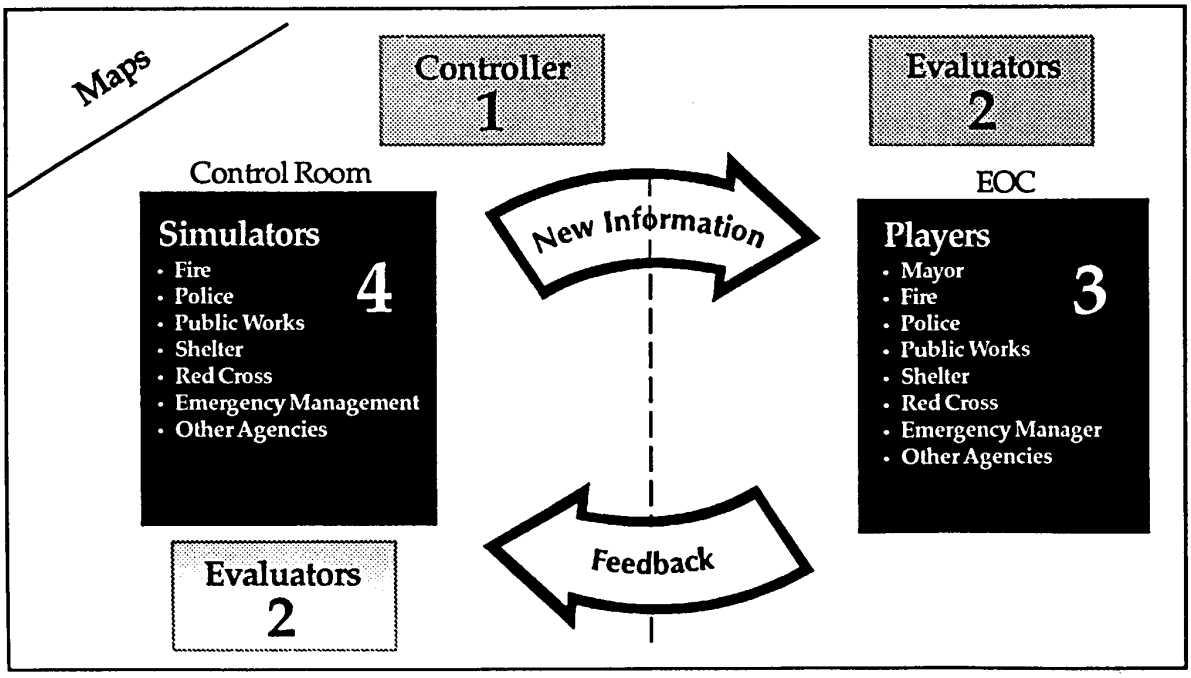
The evaluators role is to observe the actions and decisions of the players in order to later report what went well and what did not. Evaluator's main focus is the performance of the functions and/or agencies being tested, against the objectives of the exercise.

Depending on the type of exercise activity to be presented, the scenario of the exercise, and the resources (personnel, equipment, funding, etc.) available to conduct the exercise, the following chart may be helpful in planning:

STAFF IN DIFFERENT EXERCISE

EXERCISE	CONTROLLER	SIMULATOR	EVALUATOR
ORIENTATION SEMINAR	One person = emergency manager	None; done through written materials	Emergency manager or facilitator or participants themselves
DRILL	Emergency manager and agency director	One at field or EOC location	One in field or EOC location
TABLETOP EXERCISE	Emergency manager	None; done with written scenario, messages or problems	One evaluator for every 2-3 agencies represented; participants themselves
FUNCTIONAL EXERCISE	Master controller, simulation controller, message controller	One for every 2-3 agencies	Evaluation team including one evaluator for every 2-3 agencies represented, participants themselves
FULL-SCALE EXERCISE	Master controller, simulation controller, message controller, field site controllers	Simulation team, one for every 2-3 agencies	Evaluation team including one evaluator for every 2-3 agencies represented, field evaluators at sites, and participants themselves

Simulators/Evaluators Feedback



Physical Requirements for Exercises

The physical facilities for different types of exercises will vary greatly, therefore it is prudent to look at what is needed for exercises. The chart below may provide items for consideration.

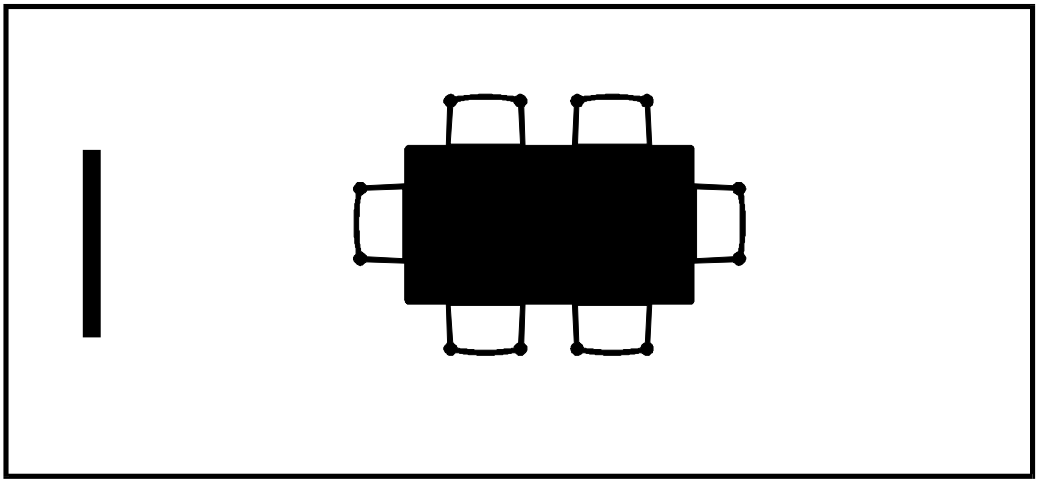
PHYSICAL REQUIREMENTS FOR EXERCISES					
	ORIENTA-TION	DRILL	TABLE-TOP	FUNC-TIONAL	FULL-SCALE
Player's Location					
[ ] Clear work surfaces	X	X	X	X	X
[ ] Sufficient Work Space	X	X	X	X	X
[ ] Visual access to necessary displays	X	X	X	X	X
[ ] Pencils, paper	X	X	X	X	X
[ ] Parking	X	X	X	X	X
[ ] Refreshments/food	X	X	X	X	X
[ ] Restrooms	X	X	X	X	X
[ ] Name cards	X	X	X	X	X
[ ] Easel, flip chart	X	X	X	X	X
[ ] Observer space	X	X	X	X	X
[ ] Ventilation	X	X	X	X	X
Support Facilities					
[ ] Simulation Room		X		X	X
[ ] Message Center		X		X	X
[ ] Control Center		X		X	X
[ ] Communication equipment		X		X	X

The best guide as to the location of your exercise activity is where you intend to operate your emergency from. Remember that the intent is to simulate "reality". The responses of players is planned to be as similar as possible to those that would occur in a real event. Therefore, wherever that site (mayor's office, county building, public works department, etc.) is , exercise there.

The following are examples of design setups for different exercise types:

Orientation

An orientation exercise activity can be presented in any room of sufficient size to accommodate the targeted group. Normally, they surround a conference room table or the presenter will address the group in an informal classroom setup, but not necessarily in the EOC.

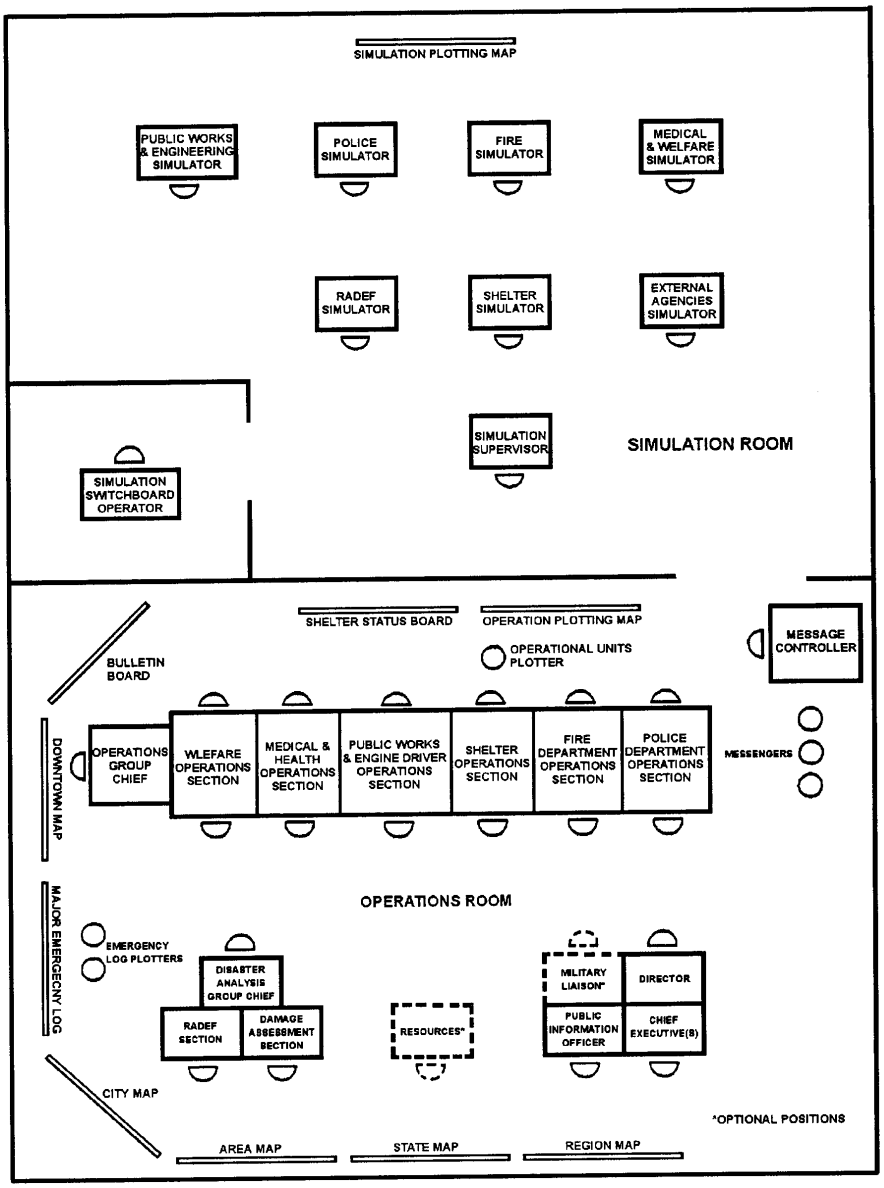


Tabletop

A tabletop exercise can also be accomplished in a conference room setting. Primarily this will be a functional group or groups(department or agency personnel)

Functional or Full-scale

For a functional or full-scale exercise the EOC should be used for the maximum effect, under time constraints, in which the players are tested under simulated emergency conditions. The following diagram is an example of an EOC and a simulation room.



Sample Floor Plan

THE EIGHT(8) STEPS OF EXERCISE DESIGN

Needs Assessment

Designing an exercise should include taking an inventory of the needs, which establishes the reasons to do an exercise, defines problems, and identifies the functions to be exercised. Evaluation of any past events or exercises, should be primary sources of information Also, the following areas should be reviewed:

The base document for all emergency management exercises is the current Emergency Operations Plan(EOP). A review of what responses are planned, what resources, personnel, and procedures that have been identified. The following is an example of a needs assessment:

a. Hazards - List by priority, any problems in the past, and which need to be exercised.
b. Geographic area - Look for the vulnerable areas of the community to hazards.
c. Emergency Functions - Determine what function needs to be exercised.

__ Alert and Notification
__ Communications
__ Coordination and Control
__ Emergency Public Information
__ Damage Assessment
__ Health and Medical
__ Other
__ Individual and Family Assistance
__ Public Safety
__ Public Works
__ Resource Management
__ Warning

d. Agencies and Personnel - Determine who would be involved and who needs the training. Have policies or staff changed?

__ Police
__ Fire
__ Sheriff
__ Public Works
__ Airport
__ State Emergency Management
__ Red Cross
__ Hospital
__ EMS
__ Business and Industry
__ School District
__ Surrounding Jurisdictions
__ Volunteer Organizations
__ Others

e. Exercise Type - Determine which exercise to conduct. At what level is the exercise experience? How much time can be allocated for development? Is a certain type required to fulfill compliance?

__ Orientation
__ Drill
__ Tabletop
__ Functional
__ Full-scale

Scope

Defining the scope means to put realistic limits on the areas addressed in the needs assessment. Not all hazards can be tested, not all exercise types used, nor all resources available. The scope should be clear and defined. The following five(5) categories below, make up the scope.

a. Hazards - Normally, one main hazard is identified in the scenario of the exercise, even though others may develop.
b. Geographic area - A more defined location of the event, an address, or specific site.
c. Functions - What emergency management functions will be tested, based on need?
d. Agencies and Personnel - Who will be participating agencies and what staffing levels?
e. Exercise Type - Depending on the realistic level of play that is obtainable or what exercise may be mandated.

Statement of Purpose

A statement of purpose is developed to provide a broad statement about an upcoming exercise activity. Using this statement, a local emergency management program can communicate the plan to exercise, the purpose of the exercise, and relaying the exercise scope to government leaders, community, and the media. The following are two(2) examples:

Sample Purpose Statement 1

The purpose of the proposed emergency management exercise is to improve the following emergency operations:

a. *Flood stage monitoring*
b. *Evacuation warning*
c. *Relocation of school children*
d *Shelter management*

by involving the following agencies and personnel:

a. *Emergency Management*
b. *Fire Department*
c. *Public Works*
d. *Health Department*
e. *Red Cross*
f. *Public Schools*

in a *functional* exercise simulating a

flash flood

at Planter's Street Bridge to Route I-740 on April 2.

Sample Purpose Statement 2

The purpose of the proposed emergency management exercise is to coordinate the activities of city and county government in their response to a major incident; to provide training to staff; to test and evaluate the Alert and Warning, Evacuation and Shelter/Mass Care Annexes; and to enhance interagency coordination and cooperation by involving the following department or agency heads:

1.	County Commissioner or Chief Administrative Officer	Justice County
2.	Mayor	City of Liberty
3.	Emergency Manager	City of Liberty
4.	Emergency Manager	Justice County
5.	Fire Chief	Justice County Fire Chief
6.	Law Enforcement	Justice County Sheriff
7	PIO	Liberty City Gazette Rep.
8.	Hazmat Team Liaison	Justice Co. Team # 3
9.	Chemical Expert	Arrow Chemical Company
10.	Poison Control Center	Dr. Smith
11.	American Red Cross	Disaster Director
12.	Liberty City Hospital	Emergency Room Director

These will be tested in a simulated exercise on July 15th involving a hazardous materials transportation accident at SW Mail Road near SW Johnston Boulevard, approximately 300 yards from the Liberty City Hospital.

From this purpose statement, an Exercise Directive can be constructed. This will provide official support for the exercise by creating a letter or memo and having the Chief Elected Official endorse the document. It usually will contain the contact person with a phone number, hours of the exercise, and the location of the activity. This becomes part of the permanent record of the exercise activity.

Objectives

Objectives are the focal point of any exercise activity. They represent a further defining of the purpose statement for the exercise by describing the expected outcomes(performance) of the emergency management functions being tested to a competent level. After all, the emergency management system of any community needs to be tested and evaluated.

The objectives for any exercise activity should provide a statement of the following:

a. Who is to perform the action?(Example: Public Information Officer)
b. What they are to do?(Example: Distribute a press release to local media)
c. Under what conditions?(During the first phase of evacuation)
d. According to what standard?(Example: Within 15 minutes of the decision to evacuate the area)

Objectives should be developed that are clear, concise, specific, and performance based. All objectives should be attainable. The primary interest is to have success, not failure.

The amount of objectives needed for an exercise activity will vary. An orientation exercise activity may only need two or three objectives, where a full-scale exercise may require several for each function involved in the exercise.

Good Examples of Objectives

1. At the time the evacuation notice is received, the EOC policy and coordination groups will examine the needs of schools and other special facilities and organize notification, according to standard operating procedures.

2. For the EOC to identify and activate an alternate communication system to be used as a back up within 30 minutes of failure of primary communication, as described in the emergency plan.

Bad Examples of Objectives

1. To test the volunteer organizations.

2. To get agencies to improve their disaster operations.

Narrative

As part of the exercise scenario, the narrative describes the events leading up to the time the exercise begins. It sets the scene for later events and also captures the attention of the participants. The narrative is normally one to five paragraphs long with short sentences and specific information. It includes answers to the following questions:

- What event?
- How fast, strong, deep, dangerous?
- How was the information relayed?
- What response has been made?
- What damages have been reported?
- What is the sequence of events?
- What time did it happen?
- Was there any advanced warning?
- Where does the event take place?
- What are the weather conditions?
- What other factors would influence emergency procedures?
- What is predicted for the future?

The narrative can be presented to the players by reading it aloud, given in written form, or by prescripting a news type video or radio news broadcast. The following is an example narrative:

A Boeing 747, en route from Panama to San Francisco is experiencing in-flight engine problems and will have to make an emergency landing. Plans have been made to land at a large airport 200 miles north. However, the latest communications with the pilot indicates that the plane has lost engine power and is losing altitude too quickly to reach the large airport. They will attempt to land at your airport.

Conditions at the airport are clear and the surrounding area is dry. Winds are from the north, steady, at 10 mph.

The main runway lies along a relatively unpopulated suburban area. However, the likelihood of the pilot landing the plane in that area is slim. The approach will pass over populated housing developments.

Airport control tower has alerted their own Crash/Fire Rescue units and is requesting local emergency services to provide backup assistance in fire, medical, police, search and rescue, and welfare.

It is now 9:00 a.m.(The exercise begins)

Major and Detailed Events

These events will take place after, and as a result of the disaster described in the narrative. Major events are big problems that are likely to occur based on past occurrences in case studies of real events. Normally, there will be several of these, but directly related in sequence, to the narrative. They will require certain emergency functions to be addressed and drive player actions. As an example, based on the above narrative:

- Fuselage breaks apart as it hits buildings on approach.
- Engine and fuel ignite several fires to homes.
- About 60 survivors are thought to be trapped in the front section of the plane.
- Several bystanders are injured on the ground.
- Crowd convenes around the crash site.
- Family members of victims begin to gather at the crash site.
- Estimates of fatalities are 200-300.

The first event should trigger the damage assessment function. While the second calls for action from the fire department. The third and fourth, fire search and rescue and EMS. The fifth and sixth deal with scene security and the last with mass fatality response.

Detailed or Minor Events are smaller problems of each major event that will still require action to be taken. They are designed to prompt expected actions. As an example:

Major Event: About 60 survivors trapped in the front section of the plane

Detailed Events

Rescuers find survivors entangled in the wreckage
Many of the trapped victims are found to be severely injured
Passengers and/or onlookers get in the way of rescue efforts

Expected Actions

These are the desired actions or decisions the players need to make. Given a major or detailed event, it is anticipated that the players would perform actions that follow the emergency operation plan, including SOPs and procedures.

Expected Actions Should:

- Verify (Information gathering)
- Consider (Discuss, negotiate, consult)
- Defer (put action on priority list)
- Decision (Deploy or Deny resources)

As an example from the detailed events above:

Survivors entangled in wreckage - EXPECTED ACTION: Special extrication equipment brought in.

Trapped people found to be severely injured - EXPECTED ACTION: Paramedics establish EMS branch within ICS.

Onlookers get in the way - EXPECTED ACTION: Law Enforcement sets up perimeter and security.

Messages

Messages are the means by which the expected actions are brought about. They are communicated to the players by:

- Telephone
- Radio
- Delivered by hand
- Whispered
- Transmitted by fax

There are two kinds of messages, the ones prescripted that you develop prior to the exercise and spontaneous messages that would need to be done when players react in a different way. Also the spontaneous messages can be "free play" that is infused into the exercise by the controller or simulation to induce, create, or steer players to react.

Messages must come from a credible source, as if it happened, and be delivered to the proper parties. For example, John Q. Public would not be able to report anything directly to the EOC, but through the communications system, 9-1-1 or other dispatch. This then would become a message into the EOC from dispatch.

A standard message form used should have several components:

- Source of the message - Is it credible?
- Method sent - By phone, radio, fax, LEIN, or verbal.
- Content of message - Is there enough information being sent?
- Recipient - Who receives the message and do they have the authority to act?
- Message number - Recorded by message controller.
- Time
- Action taken - Response of the player to the message (optional as this may go on a situation log.)

The following is an example of a message form:

DISASTER EXERCISE

<MESSAGE>

TO: METHOD: FROM:

NO: TIME:

CONTENT:

ACTION TAKEN:

For a functional or full-scale exercise activity, a "Master Sequence of Events List"(MSEL), should be constructed to provide the guidance for controllers and/or simulators in keeping the exercise on schedule. It is important that messages are entered with proper sequence so the exercise will maintain "flow" and controllers can monitor the tracking of the messages. As an example:

MASTER SEQUENCE OF EVENTS FOR FOUR HOUR EXERCISE

Input Time	Event #	Message #	To	From	Message
0800 a.m.	# 01	# 101	9-1-1	Airport Tower	Aircraft with mechanical problems on final approach
0802 a.m.	# 02	# 102	Fire and Rescue	9-1-1	Airport requesting assistance to support fire, search and rescue, and Haz Mat.
0803 a.m.	# 03	# 103	EMS	9-1-1	Airport requests assistance to support mass care operation
0805 a.m.	# 04	# 104	9-1-1	Airport Tower	Aircraft has crashed on Runway 23, on fire, some survivors visible, request additional emergency services of city
0807 a.m.	# 05	# 105	9-1-1	Fire Unit #2	Establishing Incident Command at Airport Operations Building

EXERCISE ENHANCEMENTS

Purpose

Exercise enhancements are those items that can add realism to an exercise. With smaller exercises, this could include notepads and maps. On larger exercises, radios, telephones, fire equipment, and water or foam. It is intended to provide realistic props that may be used in an actual event. They are listed in six(6) categories:

- Communication devices - Hard-line and cellular phones, hand-held radios, fax machines, and ham radio.
- A/V equipment - TV/VCR, AM or AM-FM radio, overhead projectors, slides, computers, and mapping.
- Office Equipment - Copy machine, fax, office supplies, chairs, desks, and tables.
- Equipment and Props - Vehicles: trucks, planes, boats, and buses; buildings, body bags, moulage, mannequins, fake smoke, blood, and junk equipment.
- People - Drama students, church volunteers, other volunteers or organizations.
- Places - Airport runway, military Base, rail yard, industrial facility, or college campus.

How to obtain exercise enhancements?

Naturally, the first area to explore for these items are the departments themselves and some organizations that they can access. The costs of using any items must be weighed and determined if feasible. Borrowing or being lent equipment, should be taken seriously as to the responsibility in accepting their items. If it is to be returned, it would be necessary to return it in excellent condition, where applicable.

If enhancements are not readily available, other private organizations may be willing to donate or lend equipment. A personal contact should always be made in any attempt to secure donations. Again, understand what the conditions will be if the items are to be returned. If donated, can they be recycled for the next exercise?

Also, the fact that other organizations may need to exercise(airports, hospitals, and facilities), may allow you to use their items by combining exercise efforts into one exercise.

Creativity

In order to provide player with the proper effect or feel of a simulated event, it may be helpful to work with the local television stations in creating simulated news or news breaks. They may have actual footage that they can edit for your purposes. These can then be shown to the players, simulating live broadcast reports.

When involving an exercise with a mass care scenario, an accident scene can be set up and acted out including make-up and props.
Using the local weather service to send in “exercise or drill” messages as if it was being reported, can be set up to trigger specific actions of players.

A very effective item for exercises are the use of maps. All exercises that involve hazards affecting an area should include the charting of maps as events unfold. Preparation will need to be made prior to an exercise on obtaining municipal, county, and possibly state maps for use in the exercises. Players would then use and update areas affected. It will also be important for decision-makers in planning for possible future concerns or disaster management issues. Some of the maps needed may be:

- City street maps
- County road maps
- Sub-division maps
- Sewer main and facilities maps
- Water main and facilities maps
- Electric lines and facilities map
- Gas lines and facilities
- Flood plain maps
- Contour maps
- Police and fire district maps
- Facility, plants, rail yard, terminals, and airport maps.

As part of an exercise, an expected action would be to have the appropriate agencies create maps(if time permits).

Control charts and logs will be vital to the operation of agencies participating in the exercises. Status boards, events logs, resource charts, and any other helpful "visual" reference can benefit players and practice on keeping them up to date is important.

Other concerns

Just as important is the safety and liability issues of the exercise. Proper planning should include the discussions and formatting of safety rules, damaged equipment, and protection of all personnel involved in the exercise.

EXERCISE EVALUATION

Definition

Exercise evaluation is the act of observing and recording exercise activity or conduct, by comparing the behavior or activity against the exercise objectives while noting strengths and weaknesses.

Evaluation of Performance

It is important to evaluate the actions of the functional areas, and see if they did what you intended for them to accomplish as defined by the objectives.

During an exercise, mistakes will occur and players will learn from them. However, it is just as important to report on the "successes" that were shown during the exercise. Certain issues or problems may surface, possibly unexpected, and changes may be made for the future. Certain policies, procedures, and equipment may be needed, replaced, or added.

Documenting the results will be a crucial factor in providing the information needed to be presented to a governing body.

Evaluation Process

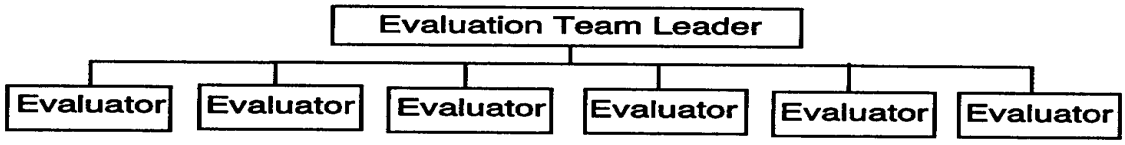
Evaluation of an exercise actually begins in the planning of the exercise(see chart on page 24). Just as in the exercise design process where a design team leader is selected, at the same time someone will be selected to lead the evaluation team. This person would have experience in evaluation exercises.

As an evaluation team leader, and a member of the design team, he/she would be responsible for:

- Selection and training evaluation team members.
- Developing the evaluation method.
- Directing evaluation activities.
- Conducting post-exercise meetings.
- Writing the evaluation report.

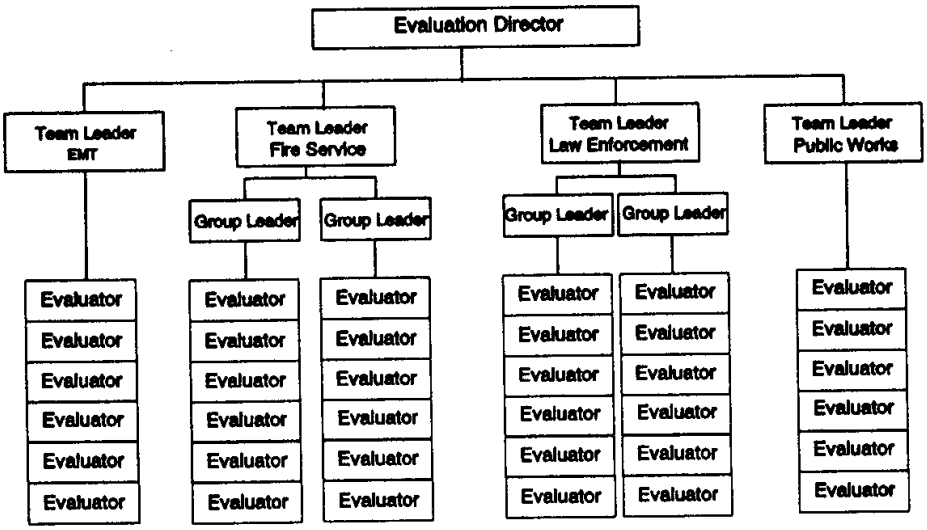
Evaluation Methodology - Selecting and structure of the evaluation team

The size of the evaluation team will depend directly on the size of the exercise. As an example for a small exercise, the structure may be similar to this:



Notice that this structure would lend to few organizations, locations, and limited number of objectives.

For a more formal and complex exercise, it could be organized as this model:



Notice this would have several locations, multiple organizations, and a large number of objectives.

Selection of evaluation team members will require determinations to be made about:

- Sources for evaluators
- Skills of evaluators that are desirable
- Qualities or characteristics that should be looked for in evaluators

Sources for evaluators

Evaluators may come from inside the local emergency management system or outside. Arguments can be made for both, but normally this would be decided within the exercise design process. During that planning, the personnel can be delegated with assignments and a determination can be made if there is enough staff to provide evaluators. This would be an advantage, as they would be familiar with the local emergency management system.

Some sources for evaluators outside the organization would be:

- Neighboring jurisdictions
- Emergency services personnel not playing
- Professional evaluators or consultants
- State or Federal agency personnel
- College or university faculty
- Public service groups or volunteer organizations

Some problems that may arise in recruiting would be financial, political, or lack of ideas.

Skills of evaluators

When searching out evaluators, it is beneficial if they can provide the proper expertise and experience.
If your prospective evaluators are familiar with your plan, the learning curve is shortened.
They should have good verbal and written communication skills.
Organizational and analytical skills are necessary in keeping with your exercise design.
Political skills are needed in handling sensitive situations that may arise.

Qualities or Characteristics of Evaluators

They should have the ability to work with other people.
It is important that they can be objective without embellishing their own feelings.
They have the ability to work without constant supervision.
Asking questions or giving answers, promptly when needed.
Have the ability to be flexible to rapid changes in situations.
They should be honest in what they report seeing.
To be able to keep the information confidential until the proper time.
That they will be attentive throughout the exercise.

KNOWING WHAT TO EVALUATE				
OBJECTIVE	ACTION/DECISION	PLAYERS	WHERE	TIME
Notify principals of each school	Activate "call-down" procedure	Superintendent	In EOC, school player	10:15
Emergency contact of bus drivers	"Call-down" procedure-phone	Transportation Supervisor	EOC, school player	11:05
School closure announcements on TV/Radio	Message preparation and distribution routine	Superintendent, Emergency Manager, Media	EOC, media player	11:10
Open cafeteria and gym for shelter	Notification of media, opening and supplying of facilities	Superintendent, Facilities	EOC, school player	12:20

Evaluation Methodology - Objectives

Remember, the objectives are what you are asking the players to do, to see how the functions perform. Therefore, you will be interested it getting a report on what the evaluator(s) "observed".

Evaluation Methodology - Evaluation Packet

The evaluation packet are the tools used to guide the evaluator while observing the exercise, specifically the exercise evaluation form. This would include "points of review" and checklists. Points of review are things to notice or look for. They can be represented on the form by:

- checking a list or boxes identified
- simple yes or no checked or circled
- by a rating system as 1 = Low, 5 =High
- by responding to a question that is posed

Also, as part of the form is a section of blank or lined space for narrative, which are comments about what was seen. The following is an example of what an evaluation form may look like:

Evaluator Name:_____ Assignment or Location: _____

Exercise Name: _____ Date: _____

Objective # : _____ Function Being Tested: _____

Objective: _____

_____

_____

Points of Review:(Examples)

1. Were traffic control staff deployed to traffic control points? Yes___ No ___ N/A ___
2. Were access control staff deployed to access control points? Yes ž No ž N/A ž
3. Did traffic or access control staff display accurate knowledge of their roles? Low 1 2 3 4 5 High
   (circle the closest number)

4. Did the organization follow its plans and procedures? If no, explain._____

_____

_____

_____

Narrative: _____

_____

_____

_____

_____

_____

_____

Evaluator: _____ Organization: _____
(Signature of Evaluator)

_____

It would be beneficial to perform some pre-exercise orientation training with your evaluators and review forms, terminology, and reporting requirements. This will depend on the level of expertise of the evaluators.

If you are using new evaluators for your exercise or training personnel to be evaluators, it will make a difference in the agenda items for the orientation. Some of these items should be part of any agenda:

a. Exercise scenario
b. Rules of play
c. Exercise schedule
d. Objectives (specific) to be demonstrated
e. Evaluation assignments
f. Logistics including dress, times, transportation, communication
g. Information about the jurisdiction
h. Any other needs

During the Exercise

The evaluation team will be placed in position whether in an EOC or at field sites or both. As evaluators, some of the practices they should employ include:

1. Be unobtrusive to the players and not draw attention.
2. Be familiar with key events, MSEL, plans, procedures, and resources of the functional area.
3. If unable to document necessary data, contact the evaluation team leader.
4. Avoid making evaluations and judgments during the exercise.
5. Avoid conversations with other exercise staff or players.
6. Recording the time of observations.
7. Expect to be monitored by the exercise or evaluation team.
8. Be familiar with the evaluation checklists and report forms.
9. Minimize your effect on the exercise by being low key as possible.
10. Be aware of the potential impact of the evaluator on exercise play.

Evaluators may have an effect on the exercise based on factors that may be intentional or unintentional. With good selection methods and proper training, most of these factors can be reduced or eliminated.

EVALUATOR EFFECTS LEADING TO ERRORS

Type	Description
Effect of the evaluator on the player	Player(s) being observed change behavior because they are aware of observation.
Effect of evaluator on the setting	Presence of the evaluator may lead to anxieties or expectations that change climate of the observed activity.
Evaluator personal bias	Systematic errors traceable to characteristics of the evaluator.
Error of leniency	When using a rating scale, the evaluator tends to make most ratings at the favorable end of the scale.
Error of central tendency	When using a rating scale, the evaluator tends to make most ratings around the midpoint.
Halo effect	Evaluator's initial impression distorts later evaluations or judgments of the subject.
Evaluator omissions	Because the exercise action is happening so quickly or simultaneously, the evaluator misses actions that should be recorded.
Evaluator drift	At the end of training, evaluator reliability is high, but in the field, as monitoring and motivation decrease, evaluators become less reliable.
Contamination	Evaluator's knowledge about players and organizations influences perception of events observed.
Hypercritical effect	Evaluator belief that the job requires finding something wrong regardless of players' performance.

After the exercise - Player Critique

Immediately following an exercise activity, it should be planned to conduct a "player" critique (debriefing) of the exercise. This will allow them to talk about how they felt about the exercise. The questions for the critique may be presented orally or in writing. Normally, this critique would be conducted by a member of the design team, possibly the controller. Comments about the exercise and their performance are desired. This should be kept positive, not dwelling on any negative. The evaluators would not provide input at this point except for general positive remarks, saving their specific comments for the evaluation report. The following is an example of a player critique:

EXERCISE CRITIQUE FORM

Please take a few minutes to fill out this form. Your opinions and suggestions will help us prepare better exercises in the future.

1. Please rate the overall exercise on the scale below:

1	2	3	4	5	6	7	8	9	10
Very Poor									Very Good

2. Compared to previous exercises, this one was:

1	2	3	4	5	6	7	8	9	10
Very Poor									Very Good

3. Did the exercise effectively simulate the emergency environment and emergency response activities? Yes_____ No_____

If no, briefly explain why_____

_____

_____

4. Did the problems presented in the exercise adequately test readiness capability to implement the plan? Yes_____ No_____

If no, briefly explain why:_____

_____

_____

5. The following problems should be deleted or revised:

_____

_____

_____

_____

6. I suggest you add the following problems for the next exercise:

_____
_____
_____

7. Please add any other comments or criticisms below.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Regardless of whether the player critique is oral or written, the comments made should be collected as they may provide input into possible future exercises, changes in procedures or plans, or equipment that may be needed. The most important factor in this discussion is for the players to provide feedback, while still as a group that all players can learn from; bring up possible solutions to problems, or address new attitudes in promoting the emergency management system.

After the exercise - Evaluation meeting

After conducting a functional or full-scale exercise that involved the use of several evaluators, it is a good idea to have them assemble to analyze the exercise, and organize evaluation information. This provides an opportunity for them to confer, possibly, on what was seen or respond to comments in the player critique. These sessions may provide additional information that may prove to be vital in the full evaluation report.

After the exercise - After Action Reports

Within an appropriate amount of time following the exercise, one to three weeks so memories are still fresh, a formal report should be prepared. The purpose is to formulate a document that will provide:

- Basis for future exercises
- Upgrading the Emergency Operations Plan
- Corrective Actions

The length of this report will vary with the type and extent of the exercise. For a small exercise, a memo may be sufficient. However, with functional or full-scale exercises it is highly recommended that a formal document be prepared. This report should be specific, including:

a. What worked and what did not?
b. Were the objectives of the exercise and functions met?
c. Analization of problems.
d. Accomplishments and Shortfalls.
e. Recommendations.

A copy of this report should go to the Chief Elected Official and the heads of each participating agency or organization.

Other types of exercise reports are mandated by agencies to complete. Some of these may be of a checklist variety and need only to be completed.

After the exercise - Follow-up

As part of the recommendations that could be made, specific actions may be needed. If these actions are for specific functions, timelines should be drawn up and then at an appropriate time later, revisited for completion. If they are crucial or high priority actions, this cannot be neglected but monitored for progress.

Depending on how the report is to be delivered, it may be requested to not only provide the documentation but to present an oral appraisal to a committee or full governing board. In this manner, after reviewing the report ahead of the actual meeting, members can ask questions or obtain clarification on analysis, comments, or recommendations.

It will be important to prepare, in advance, as you would for any other presentation. This would be done by the evaluation team leader or design team leader. A few questions should come to mind prior to meeting.

a. How large will the audience be?
b. What is the composition of the group?
c. What do the listeners know about the presenter?
d. What do the listeners know about the subject?
e. Is this a public meeting with local residents attending?
f. What attitudes or beliefs may be present in the group?
g. Is there support for the emergency management program?

APPENDIX A

EXERCISE CONDUCT

The day of the exercise is the culmination of all your planning. You will conduct the exercise using any of a variety of methods. As you have seen in earlier sections, exercise program activities build on each other. The techniques of orientation seminars are useful in later exercises, for example, as an initial participant briefing for a functional exercise. Therefore, this guide suggests that the experienced designer should review the tips included for all the different elements of emergency management program.

In the following pages orientation seminars, drills, and each of the three exercises will be examined with suggestions on their conduct: beginning the activity, methods for conducting, and sustaining action.

CONDUCTING ORIENTATION SEMINARS

Beginning an orientation seminar is like any other regularly scheduled meeting: attendees arrive and introductory comments on the purpose and actions anticipated are made.

Methods vary widely for orienting individuals to a plan, procedure, or idea. A LECTURE, for example, given by the plan developer, a government official, or an industrial expert can effectively get the message across. FILMS, SLIDES, or VIDEOTAPES are available from the Federal Emergency Management Agency, U.S. Geological Survey, National Weather Service, as well as some states and voluntary organizations. Some localities have even videotaped past exercises that would be useful to review. Well-planned PANELS with diverse viewpoints are effective and stimulating.

TALK-THROUGHS involve a sequential discussion of roles and responsibilities in a plan, annex, or set of procedures. The technique involves assembling personnel from agencies with a part to play in the plan or procedure. With the plan in front of them, the talk-through is begun with the initiation of the plan. One by one, participants describe; (a) the steps they take to implement the plan, and (b) the agencies they contact during implementation. Other participants follow along and interject comments. For example, when they feel their agency should have been contacted or when they have a resource that would have been useful. From beginning to end of the procedure, a talk-through offers the chance to identify gaps, overlaps, and inconsistencies while developing some personal familiarity among personnel.

BRAINSTORMING employs materials similar to those of problem resolution. The approach taken to resolving problems, however, varies. Brainstorming requires everyone to enter into "idea getting" rather than "idea evaluating". Its purpose is to come up with a solution in a free-thinking format of total involvement by all participants. The process requires everyone to join in by suggesting any idea related to solving the problem. Any judgment about the value of the idea is suspended. If it is a good idea, others will "hitchhike", adding to it and expanding the idea. If it is an inappropriate suggestion, the group simply does not follow up. There is no criticism. There is no justification or explanation. The problem passes from one participant to another (in a round robin) with everyone throwing out ideas that are new or additions to

previous ideas. The goal is to explore all the possible alternatives rather than restrict the focus by expanding on any single idea or direction.

A CASE STUDY discussion differs from the two previous methods by reporting on an actual emergency incident. The purpose is to seek lessons learned applicable to the jurisdiction. The case is reviewed by a moderator or read individually by participants. Questions can then be raised for discussion about the actions taken in the case, or perhaps the actions participants would take if faced with a similar incident. Cases are available from many sources, ranging from those you could construct from newspaper accounts, to after-action reports of local or state agencies, to those prepared by federal oversight agencies, such as the National Transportation Safety Board.

Sustaining action in an orientation seminar is largely a responsibility of the leader or moderator. In a lecture, the seminar leader needs to keep the lecturer from going on too long. In a panel, the moderator needs to keep crisp and to the point. Films or slides need to be reviewed and used selectively if parts are inappropriate.

Variety is also useful in sustaining action. Visual aids (flip charts, overhead projectors, etc.) provide variety, as do question and answer periods. Combining lecture and panel discussion also results in a varied and stimulating format.

CONDUCTING DRILLS

Beginning a drill will more than likely depend on the type of drill being conducted. For example, a command post drill would require the personnel of the emergency service, that are participants in the drill, to report to the designated drill site. There, a "visual narrative" is displayed before them in the form of a mock emergency to which they would respond. Command post equipment such as vans, command boards, and other needed supplies should be available.

Methods will vary widely from the practice of simple operational procedures to more elaborate communication and command post drills. A general briefing, setting the scene and reviewing the purpose and objectives of the drill should be conducted by the drill designer. Operational procedures should be reviewed before the drill if they are to be tested. Safety precautions should be considered and reviewed with the participants. In some drills films, slides, or videotapes can be utilized to set the scene for a drill.

Sustaining action includes both planned and spontaneous messages based on the actions of the participants. In most cases, such as when procedures are being tested, little or no communication from the drill designers would be required. In more advanced drills, interaction between the drill designers and participants may be necessary.

CONDUCTING TABLETOP EXERCISES

It is useful to begin a tabletop exercise with an exercise briefing period to orient the participants and simulators. Included in the introduction will be a summary of the objectives, discussion and clarification of ground rules, message routing and communication procedures, and any special information on simulation procedures which may affect participant and simulator actions during the session.

The second part of the exercise briefing is an intelligence briefing given by either the exercise controller or a simulator, who will simulate the person on the EOC staff who would normally advise others of the crisis simulation. This briefing consists of presenting the scenario narrative prepared by the exercise design team. All participant questions pertaining to the intelligence and situation briefing will be handled by the controller or simulator.

At the completion of the intelligence briefing, the controller will announce that the exercise is beginning. The exercise controller will begin the exercise by introducing the first problem to the participants.

Methods for the tabletop divide into two categories; basic and advanced. Basic tabletops seek to solve problems in a group. Advanced tabletops introduce messages.

In PROBLEM RESOLUTION, the scene set by the scenario materials is usually made up. The scene describes an event or emergency incident and brings the discussion participants up to the simulated present time. The materials either provide all the details about the imaginary jurisdiction involved or allow players to use their knowledge of local resources as the context. Players then apply their knowledge and skills to a list of problems that might appear at the end of the narrative or that are verbally presented one at a time by the seminar leader. Problems can be discussed as a group and resolution generally agreed upon and summarized by the leader.

In the advanced tabletop exercises, play revolves around delivery of prescripted messages to players. Play can follow two courses. All players can evaluate the same message and announce their actions or decisions at the conclusion of a "round". Discussion might then take place or another message could be given. A second technique treats players individually. Each gets the messages intended for the agency he or she represents and makes a decision. When a decision is completed, another message is handled. Players are left alone to individually seek out information and coordinate decisions with other players.

The exercise controller will normally introduce problems one at a time in the form of a written message. Participants will discuss the issues raised by the problem, using the appropriate plan for guidance and direction. They will determine what, if any, additional information is required and request that information from the controller (or the simulators by telephone if direct communication is being used). Participants will then take some action on the problem. Action can be in the form of a written directive or an indication to the controller that the appropriate jurisdictional plan does not supply adequate guidance or direction for them to follow in resolving the problem.

Simulators will use their own emergency plans as a major guidance in generating responses to the participant questions. Simulators should respond to all requests as soon as is feasible.

The controller will monitor the participant discussion and assist in guiding the discussion if any such action is necessary. Each problem will have a recommended time frame for participant action. If the controller sees that excessive time is being used on a problem situation, they may elect to terminate the discussion and move on to another problem. The exercise controller will also determine if time should be extended.

At the completion of participant action on a given problem (or while participants await a response on an inquiry to a previous problem), the controller will input another problem. It is recommended that the participants in these exercises work on only one problem at a time.

The controller and simulators (if used) will maintain a Problem Log and make appropriate notations concerning the participant actions, adequacy of the plan to provide participants with guidance and direction, and any other problems which come up during the exercise.

The tabletop exercise is better suited to exercising single emergency management functions or very few functions. Training in decision-making and resource allocation are good uses of the tabletop.

Sustaining action in a basic tabletop continues to be an important function of the leader or moderator. Techniques are available, however, to assist the leader. First, the scenario narrative or case can be developed in event stages. That is, the initial narrative may involve warning; a later one could deal with search and rescue. In this way, more than one narrative can be use to sustain action.

Second, the progression of problems that the participants address is a natural way to modify or improve the flow of action in the seminar. Problems can be added or deleted to alter speed of consideration.

Third, combining methods also offers the opportunity to vary action in the seminar. Problem resolution might give way to brainstorming for a single difficult problem. Or, a case study might precede a scenario narrative to allow participants to utilize the case lessons learned.
Sustaining action in an advanced tabletop exercise is largely dependent upon message flow. Sending multiple messages can increase pace; delaying messages decreases pace. In general, spontaneous messages are used in a tabletop when free play has resulted in events or actions developing in the exercise that were not anticipated by the designers. You must be careful to control free play so that it supports the objectives of the exercise. All it takes to bring the free play back on track is a word from the controller. Do not hesitate to control the exercise tightly.

As you can see, sustaining action is important. The tabletop is basically low-stress with emphasis on discussion, and controlling action. It is low-key training, not testing. Knowing when to suspend action is as useful as knowing how to sustain action. The controller or leader needs to watch carefully for signs of frustration among players. If difficulty arises, messages back up, or a problem causes conflict among players, stop the exercise. Reach into your experience as a discussion leader and help players talk about their situation. Engage in construction problem solving. The tabletop is designed to be one step along the way to functional and full-scale exercises. Avoid a bad experience with the exercises by keeping in mind the low-key nature of the tabletop.

It is recommended that an EOC be used for the exercises because the EOC provides the most realistic setting for the exercise; the various plans, displays and maps are available on the premises.

However, any conference facility that will comfortably accommodate the number of participants in a face-to-face setting will be adequate.

Copies of the appropriate emergency plan(s) must be available for reference, as should maps and other displays that would typically be available in the EOC and that may be necessary for reference during discussion periods. If direct phone or radio communications are not available, message forms will be required. Copies of blank message forms should also be available for requesting additional information, issuing directives, etc. It is recommended that there be a recorder to document the actions taken by the participants. These recorded actions will serve as a reference for the exercise evaluation.

CONDUCTING FUNCTIONAL EXERCISES

Beginning a functional exercise will depend on its objectives. If an objective is to test the notification system, then a "NO-NOTICE" exercise is useful. In this, participants will know only that an approximate time frame is scheduled for the exercise (anywhere from one day to several weeks). The exact moment of the exercise will be a surprise, allowing the exercise designers to observe how effectively notification and assembly at the command point take place during, for example, lunch time. In most exercises where notification is unimportant, the exercise time will be announced as would any meeting.
The success of an exercise depends largely on the participants having a clear and consistent understanding of what is expected of them. Many exercises fail because the ground rules or simulation techniques to be used during the exercise are inadequately explained. To ensure that all exercise objectives and procedures are understood, participants should be briefed before the start of the exercise.

The briefing should include a statement and discussion of the exercise objectives, the simulated time period in which the exercise is to be conducted, a description of the simulated environment, recording requirements, and an outline of the procedures and ground rules to be employed. The outline of procedures should clearly specify the participating agencies, and the internal and external non-participating agencies and services. This briefing should be held immediately before the start time of the exercise.

The briefer the briefing, the better. Distracting "administrative notes" on location of rest rooms, time of lunch, and parking locations are best handled in a written note included with exercise materials. In designing the conduct of the exercise, ask at every opportunity: "Will this distract from the atmosphere of a real emergency?" Avoid everything that does.

Methods are exclusively those of delivery and reaction to simulated messages that represent to the participants the emergency created by the exercise designers. Messages can arrive on paper, by telephone, or by radio. Messages are directed specifically to individuals or agencies who then are responsible for coordinating any responses with other players.

The value of the exercise will depend on the extent to which the participants are successful in carrying out their functions as if it were a real emergency. Exercise participants should be encouraged to think of each input of a message as an actual event. From the general message input, participants should determine the expected consequences or effects, coordinate internally and externally with whomever they deem necessary, and take the appropriate action.

Participants should be encouraged to treat simulated communication outages, damages or failure of equipment, logistical limitations, and personnel losses as if they were actually occurring. These types of situations, which cause a degraded environment, have a particular value because they place added stress on the system and will more effectively test its ability to cope in times of emergencies.

Functional exercises use two methods of message delivery: prescripted messages and spontaneous messages developed by simulators. Where applicable, a simulation room permits a considerable advantage over the tabletop exercise in that messages can be dynamically modified to suit the evolving nature of the exercise. In a tabletop, with no or few simulators and limited control manpower, this is not possible. But with several simulators, this method becomes an exciting way to constantly modify the exercise to the needs and skills of the players.

Sustaining action through planning is one way to approach a key goal of scenario and message development for the functional exercise; having everyone who is involved active throughout the entire exercise. This requires careful planning and review of the message flow throughout the exercise.

A procedure is available to help you chart the message flow to see if in multi-functional exercises, any group is being ignored. One way of doing this is illustrated in the following chart.

PLANNING AN EVEN FLOW OF MESSAGES

Check the times when messages are scheduled for delivery to each agency.

	PARTICIPATING AGENCY OR ORGANIZATION						
Time	Fire	EMS	Public Works	EOC	Exec	School	
Exercise Start							
10:00	✓	✓	✓				
10:03							
10:06		✓		✓			
10:09	✓			✓			
10:12			✓	✓		✓	
10:15		✓			✓	✓	
etc.							

Use the chart to plan the flow of messages throughout the exercise. Down the left column are three- to five-minute intervals of time for the length of the exercise. Across the top are all the participating organizations. Sort your messages by the organization receiving and check in the boxes of the chart the times an agency or organization receives a message. You will quickly see the gaps and overloads in your message flow.

Simulator Role

In order to create a real-life environment, simulators act as, and on behalf of, the involved agencies and services which would normally interact with the exercise participants. Simulators make inputs into the exercise that are representative of these agencies and services. Some of the inputs are scripted in advance, while others will be contingent upon an event occurring during the exercise. Simulators must be prepared to reply to participant questions based on information provided them in the training materials and in the exercise briefing. As experience is gained, functional exercise can become as complex from the players' perspective as full-scale exercises.

Simulators should take care to ensure that key events are kept active in the exercise. For example, an exercise participant may not recognize the importance of a key event input. He may put it aside without taking action, take an inappropriate action (e.g., giving the event a low priority), or delay action. As a consequence, the value of the key event as an indicator of system performance is greatly reduced. In such cases, the simulator (or exercise controller) should strive to cause the participant to retrieve the event and act on it. It may only be necessary for the simulator to call and inquire why no action has been initiated. In some cases it may be necessary to improvise a situation that would call attention to the lack of action in response to the event. When all else fails, it may even be necessary to reintroduce the event. Ensuring that key events are given full and timely attention will require ingenuity on the part of the simulator.

Control Role

The exercise controllers monitor message inputs and participants' responses. Scheduled messages that become invalidated by a participant action before they are input must be deleted by the controller. In these cases, the controller informs the simulator that the scheduled message should not be input. An example would be a request by a simulator for fire fighting equipment when the fire chief has already sent equipment into the area. In multi-jurisdictional exercises, controllers at each location must follow the exercise play closely and advise other controllers of any changes in stress situations at one location which may affect exercise play at another location.

Another type of input that is not prescripted is the dynamic input inserted into the system by simulators, based upon the participants' reaction and actions to other input. Care must be taken in selecting these kinds of input so that they do not invalidate or conflict with other prescripted messages. When this occurs, exercise controllers must be informed of the necessary change.

Assuring a Smooth Flow of Messages

Dealing with overloads is fairly easy. First, review your objectives. Throw away any messages that do not contribute to the objectives. Second, make certain that all the messages are accurately assigned to an agency. Reassign the message if it could be used by another agency. Third, divide the cluster of overloaded messages into two piles -- those essential to the flow of the exercise and those "nice to have". You will want to get rid of some from the latter group.

Gaps are harder to handle. Look at the agencies with gaps and see if they have been unintentionally ignored. If so, add messages. It may be, however, that the agency simply has little to do during a period of time. In that case, you will have to add a side event, a special planning requirement, a secondary emergency, or a distracting message. These may come from a supply of optional messages or messages may be generated spontaneously. The purpose of these is to keep exercise activity at the proper level. Boredom is a

contagious disease. One inactive agency can distract others and bring down the intensity of the exercise. Avoid boredom by creating OPTIONAL MESSAGES.

Side events are routine actions an agency would have to continue throughout an emergency. The health department could receive a call about a well that smells of sewage. A routine traffic accident can stress police and fire. An unrelated heart attack victim can be reported. The purpose of side events is to test resource allocation and priority setting.

Special planning- requirements would cause an inactive agency to engage in some type of short-term preparedness activity. For example, hospitals could run a test of emergency generators or public works could notify all drivers of possible overtime hours coming up.

Secondary emergencies develop out of the main flow of exercise events. If the tornado spotters or amateur radio groups have a gap in activity, another (secondary) tornado can be reported to keep those groups involved. Similarly, utility outages, water main breaks, gas leaks and emergency vehicle accidents all can run parallel to the main course of the exercise and keep one or more agencies involved between their own major exercise events.

Misdirected messages are useful at any time, but especially so during a lull in activity for an agency. A misdirected message should not be handled by the receiving agency. The purpose is to see if the agency will identify the misdirected message and forward it to the proper agency. During a gap in activity, misdirected messages can provide a meaningful measure of an agency's clarity of role definition

Sustaining action through spontaneous messages is a second technique used in functional exercise. There will come a time in the flow of messages when controllers have to live by their wits to keep the exercise activity high and on course. Many different problems can arise and solutions can be found, but it may help to keep the next three described in mind.

PROBLEMS AND SOLUTIONS FOR SUSTAINING ACTION	
PROBLEMS	SOLUTIONS
LAGGING PACE--It is possible that there will be insufficient messages. Decisions may be made faster than anticipated and the exercise may get well ahead of schedule	SPEED AND INSERT- - If responses are made faster than anticipated by nearly all the participants, resulting in people sitting around waiting for the next message, then speed up the flow of messages. You'll finish sooner than expected and learn an important lesson on pacing. If, however, only a few of the players are responding quickly and have time on their hands, then insert spontaneous messages. Throw them additional problems to handle to bring their pace back in line with other agencies
FRANTIC PACE- -You may have packed too many messages and too many decisions into the exercise, resulting in a frantic pace. This often offers only minutes for a half-day deliberation. If an early decision takes more time than planned, messages may build up, resulting in a frantic attempt to "catch up" to schedule.	SPONTANEOUS RESCHEDULING- When one or more players face a nearly impossible pace, it may benefit the entire exercise to remove messages. This can be done selectively for one player or across the board for all agencies. The most dangerous time for the frantic pace is early in the exercise. Reschedule early to avoid the last minute rush to completion. You will want to pull optional messages in the middle of the exercise rather than have players rush through important decisions toward the end. But, a final consideration in a frantic pace is whether you want such a pace? Removing messages to create a good "show" will not benefit actual emergency response. One potential benefit of a frantic pace may be the assignment of more department or agency personnel to the EOC. A realistic frantic pace in an exercise may illustrate the importance of properly staffing the command center.

PROBLEMS AND SOLUTIONS FOR SUSTAINING ACTION Continued	
PROBLEMS	SOLUTIONS
AVOIDING DIVERGENCE--The exercise that you have so carefully planned probably has a dozen or more points where it can get off track. For example, the decision to evacuate must be made by a specific time or the exercise cannot proceed because later exercise events assume the evacuation has begun. In the section of this guidebook on writing narratives, (8 step process) you will learn how to pinpoint these crucial decisions. The problem is in getting them made if the players don't make the decision in time.	FROM HINTS TO FORCE-- If a major checkpoint has been reached and the decision is yet to be made, an additional message can be given to provide a "hint" about the decision. A not-too-subtle hint might be "The mayor (or governor/city manager executive, etc.) just telephoned inquiring about the need for evacuation. " If this doesn't result the desired action, the controller can always "force" the decision by talking with the player and simply, stating that a decision to evacuate should be made now. Defer any discussion on why the decision was not made until the critique.

Skip-Time Procedures

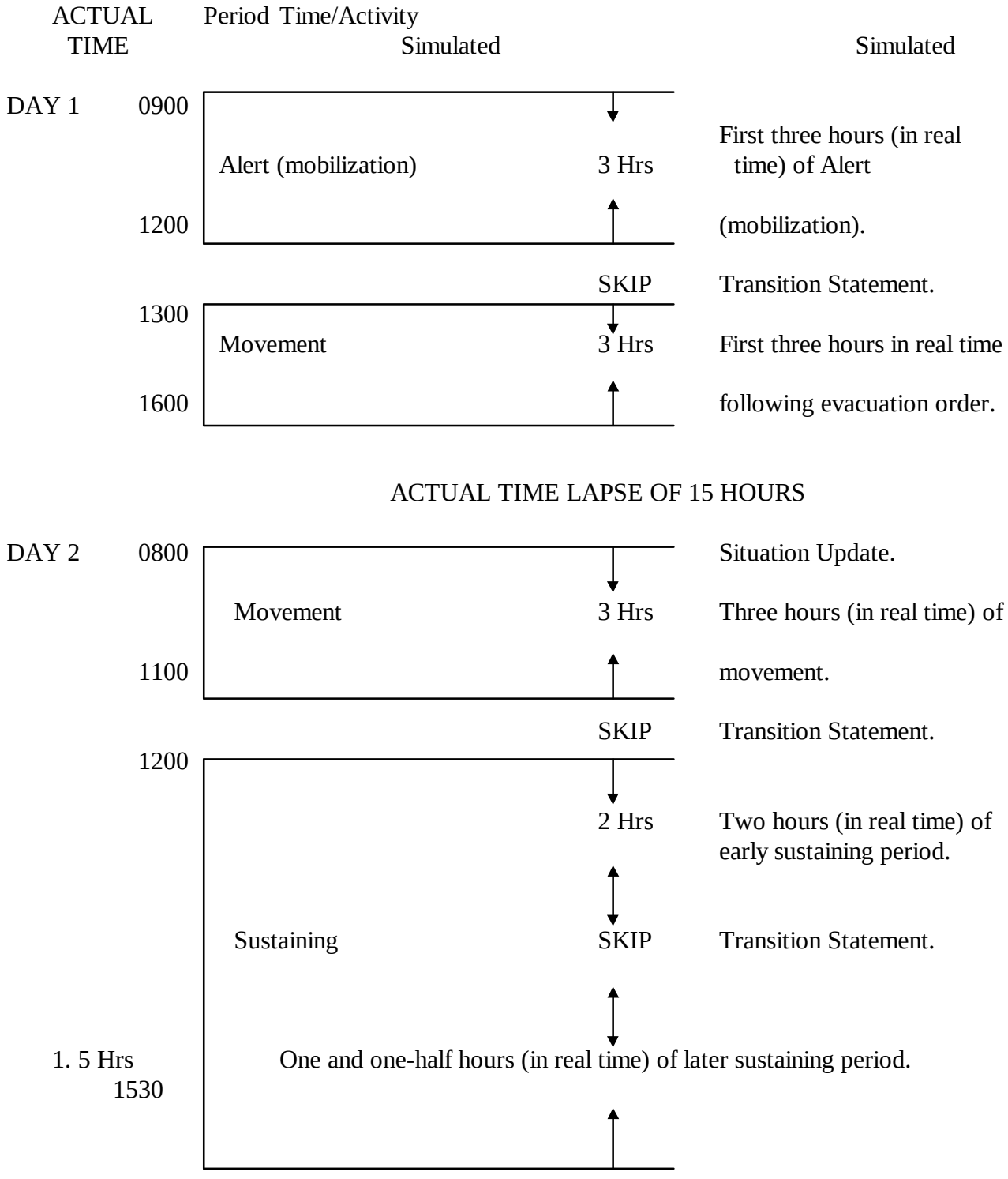
Functional exercises can depict events and situations that would actually occur over an extended time period (one to two weeks or more). In order to include the several distinct phases of the emergency in an eight-hour, two-day exercise, it will be necessary, from time to time, to stop the exercise and advance hours or days ahead, depending upon the particular exercise. These skip-time transitions are kept to the minimum, necessary to cover the scope of the exercise and usually coincide with a natural break point during a given exercise session.

The exercise controller is responsible for managing the skip-time transitions and preparing transition updates to be presented to the participants before resuming the exercise.

Simulation displays will be updated by the simulators to reflect the results of the previous events and participant actions. Actions ordered at a skip-time transition point that would have been undertaken during the transition period will be indicated as accomplished on the transition date.

The schedule for a two-day exercise showing the skip-time procedure is outlined on the following chart.

SKIP-TIME DIAGRAM FOR A TWO-DAY EXERCISE



CONDUCTING FULL-SCALE EXERCISES

Beginning the full-scale exercise occurs exactly as it does in the functional exercise. In addition, however, the personnel of the emergency service (or services) that are conducting the field component must proceed to the assigned location. There, a "visual narrative" is displayed before them in the form of a mock emergency to which they respond.

Methods for the full-scale exercise include all those occurring at the EOC or command center. Added to these are the on-scene, mock emergency use of simulated "victims" search and rescue requirements, equipment deployment, and actual resource and manpower allocation. In general the methods employed at the scene serve as an input to the simulation taking place at the EOC. However, medical plans, hospitals, emergency medical systems, fire service deployment and other localized emergency operations do not usually require centralized command from the EOC. They do require coordination with officials at the command center. Your job in a full-scale exercise, therefore, includes creating all the messages necessary for the functional exercise, plus coordinating or managing the field deployment of one or more emergency services.

Sustaining- action includes the planned and spontaneous messages of the functional exercise, but adds one additional element; actions (or controller inputs) from the field. A field command post can be used quite constructively as part of the message input to the EOC. The field command post can be written into the scenario and have a set of prescripted messages that could be transmitted directly from the field by radio for added realism. Or, the field command post controller can monitor the sequence of events of the functional exercise while controlling the drill.

Emergency Call-Off Procedures

In any exercise a real emergency might occur. Especially in a full-scale exercise, you must always keep in reserve sufficient personnel to handle routine problems--from a fire to ordinary telephone calls to the emergency office.

In addition, every exercise should have a planned call-off procedure that will result in the prompt return of personnel and equipment of full duty status. This procedure should consist of a code word or statement from the exercise controller that the exercise has been terminated and that personnel should report to their regular duty positions. All radio traffic, as well, will return to normal. These procedures should also be tested.

APPENDIX B

EMERGENCY FUNCTIONS CHECKLIST

The following pages provide an example of functional documentation that could be used in exercise activities, or for a large exercise using all the emergency management functions.

EMERGENCY FUNCTIONS CHECKLIST

1. ALERT/NOTIFICATION

POINTS OF REVIEW	YES	NO	N/A	N/O	C/A
a. Location evaluated: ____Local EOC ____Incident Command Post ____Field Command Post ____Other: _____					
b. Note time exercise commenced: _____					
c. Describe staff alerting procedures: ____Beeper ____Radio Call ____Telephone ____Other:_____					
d. Were key staff members alerted?					
e. Did key staff members arrive in a timely manner?					
f. Were call lists current and complete?					
g. Were all appropriate response/recovery personnel alerted?					
h. Did all agencies called for in the scenario respond?					

2. COMMUNICATIONS

a. Identify the communications systems at your location: 1) Telephone: ____Commercial: # of lines____ ____Cellular 2) Radio: ____RACES ____Amateur Radio ____Police ____Fire ____EMS ____Public Works 3) Other: ____Facsimile ____Computer Link					
b. Was there a common dedicated frequency for managing the emergency?					
If not, should there have been a dedicated frequency?					
c. Could the primary communications system(s) handle the flow of information without undue delay?					
d. Were backup systems available?					
e. Were backup systems demonstrated?					
f. Was a chronology of message transmissions kept?					
g. Were appropriate systems utilized based upon plans/procedures?					
h. Were there any communications problems? (Describe on back of this page.)					

3. COORDINATION/CONTROL

a. Field Operations					
1) Was an Incident Command System (ICS) implemented?					
2) Was ICS effective?					
b. EOC Operations - Direction and Control					
1) Was the Emergency Operations Center (EOC) activated?					
2) Was an individual in charge? Name/Title:_____					
If so, was that individual an effective leader?					
3) Were up-to-date copies of plans and procedures available?					
4) Did the EOC effectively provide direction/control of response?					

EVALUATOR NAME:_____ DATE:_____

CORRECTIVE ACTIONS (C/A): P - Planning; T - Training; PE - Personnel; E - Equipment; F - Facilities

COORDINATION/CONTROL (Continued)

POINTS OF REVIEW	YES	NO	N/A	N/O	C/A
c. EOC Operations - EOC Facility					
1) Was EOC properly equipped?					
2) Did any facility components impede the emergency operations?					
3) Was there adequate access control/security?					
4) Were status boards and maps available and prominently displayed?					
Were they regularly updated as information became available?					
5) Was the facility adequate for emergency operations?					
6) Were other supplies/equipment available and in adequate supply?					
(Office supplies, tables/chairs, in/out baskets)					
7) Were supplies available for extended operations?					
(Cots/bedding, food/water, sanitation, medical supplies)					
d. EOC Operations - Alternate EOC					
1) Was an alternate EOC tested in this exercise/incident?					
2) Does the jurisdiction have an adequate alternate EOC available?					
e. EOC Operations - Emergency Power					
1) Did the facility have emergency power available?					
2) Was it used/tested in this exercise/incident?					
f. EOC Operations - Inter-Agency Communication					
1) Did an EOC organization exist? (Policy/Coordination/Operations/Comm.)					
2) Did the EOC organizational structure promote inter-agency					
communications?					
g. EOC Operations - Message Handling					
1) Were appropriate forms available and in adequate supply?					
2) Was message flow a problem? (Describe on back of this page.)					
h. Mutual Aid					
1) Were local resources adequate to respond to the incident?					
2) Was outside assistance requested?					
3) Were/was (a) mutual aid agreement(s) activated?					
4) Was equipment from other sites requested/utilized?					
5) Were any private sector personnel requested?					
6) Was staff knowledgeable of existing mutual aid agreements?					
7) Did the supplementary assistance appear to be adequate and timely?					
Were they familiar with their responsibilities under the plan?					
8) Was a staging area used for mutual aid?					
9) Were supplementary resources coordinated with an individual in charge?					
i. Effectiveness of Coordination					
1) Were any conflicts observed regarding agency responsibilities?					
2) Did elected/appointed officials coordinate their efforts with others?					
3) Did EOC Staff effectively coordinate their efforts with others?					

EVALUATOR NAME:_____ DATE:_____

CORRECTIVE ACTIONS (C/A): P - Planning; T - Training; PE - Personnel; E - Equipment; F - Facilities

COORDINATION/CONTROL (Continued) POINTS OF REVIEW	YES	NO	N/A	N/O	C/A
4) Were support staff functions effectively coordinated?					
5) Were other response/recovery personnel assignments coordinated?					
4. EMERGENCY PUBLIC INFORMATION EFFECTIVENESS					
a. Was adequate, accurate and up-to-date emergency information provided to the public during the following time periods:					
1) Prior to the onset of the emergency?					
2) During the emergency period?					
3) During the immediate post-emergency period?					
b. Was public information gathered and disseminated:					
1) From a centralized location? (I.e. media center, public information center)					
2) From two or more different sites? (decentralized)					
c. Was the public information function adequately staffed?					
d. Were status boards and maps prominently displayed and regularly updated?					
e. Was a chronology of messages/news releases available and visible to staff?					
f. Were rumor control procedures demonstrated?					
g. Was public information verified prior to being released?					
h. Who authorized news releases to public?_____					
i. Media briefing times: _____ _____ _____ _____					
j. Did briefers have access to accurate and timely information?					
k. Was a prescripted format used in briefings?					
l. Were media questions answered quickly and accurately?					
m. Was the facility adequately equipped?					
n. Were appropriate actions taken based upon plans and operating procedures?					
5. DAMAGE ASSESSMENT					
a. Was a damage assessment group (DAG) assembled in the EOC?					
b. Was a systematic procedure followed to collect damage intelligence?					
c. Were sufficient numbers of personnel assigned to support this activity?					
d. Were on-site inspection teams utilized?					
Were team members adequately trained and equipped?					
e. Were Flash Reports transmitted to appropriate locations?					
f. Was a local emergency or disaster declared?					
1) Time of Declaration: _____					
2) Declaration signed by: _____ Title: _____					
g. Was Governor's Declaration requested?					
1) Time of Request: _____					
2) Was request coordinated with DAG?					
h. Were appropriate maps, logs, tabulations and other records maintained by the DAG so as to provide a comprehensive portrayal of damage at all times?					

EVALUATOR NAME:_____ DATE:_____

CORRECTIVE ACTIONS (C/A): P - Planning; T - Training; PE - Personnel; E - Equipment; F - Facilities

DAMAGE ASSESSMENT (Continued) POINTS OF REVIEW	YES	NO	N/A	N/O	C/A
i. Was damage data collected from all agencies of the jurisdiction and from other political units within the jurisdiction?					
j. Were appropriate Damage and Injury Assessment Reports submitted?					
k. Were transportation resources adequate to support field assessment?					
l. Was both public and private sector damage assessment coordinated?					
6. HEALTH AND MEDICAL					
a. Emergency Medical Services					
1) Did any rescue squads, ambulance services respond in this incident?					
2) Did they arrive in a timely manner?					
3) Were they familiar with their responsibilities under plans/procedures?					
4) Were there adequate emergency medical supplies?					
5) Did personnel demonstrate proper procedures for:					
a) Triage of victims?					
b) Checking for contamination?					
c) Decontamination of patients?					
d) Emergency treatment at site?					
e) Establishment of ambulance staging area?					
f) Establishment of patient staging area?					
g) Assignment and transport to hospitals?					
h) Movement of medical supplies to site?					
i) Casualty identification and placement?					
j) Airlift evacuation of injured?					
k) Augmentation of medical personnel?					
l) Communication links to hospitals/EOC?					
m) Assignment of personnel to critical areas?					
n) Report of injuries, fatalities, etc.?					
b. Environmental and Public Health					
1) Was a Public Health Service representative assigned to the EOC?					
2) Did Public Health field personnel respond to this incident?					
c. Mass Casualty					
1) Were there procedures for collection and identification of the dead?					
2) Were there procedures for holding and disposal of the dead?					
3) Were there procedures for utilization of professional morticians?					
c. Mass Casualty (Continued)					
4) Were there procedures for collection/security of personal property?					
5) Were there procedures for providing missing persons data?					
6) Were there procedures for coordination with Medical Examiner?					
7) Were there procedures for use of victim identification teams?					

EVALUATOR NAME:_____ DATE:_____

CORRECTIVE ACTIONS (C/A): P - Planning; T - Training; PE - Personnel; E - Equipment; F - Facilities

6. HEALTH AND MEDICAL (Continued)

POINTS OF REVIEW	YES	NO	N/A	N/O	C/A
8) Were there procedures for establishing a temporary morgue?					
Location: _____					
9) Were there adequate procedures for preservation of evidence?					
d. Medical Facilities					
1) Was patient information relayed to hospital prior to patient arrival?					
2) If contamination was present, was hospital advised?					
3) Was facility prepared to handle contaminated patients?					
4) Were ambulance and crew checked for contamination after arrival?					
5) Did hospital demonstrate proper decontamination procedures?					
6) Were hospitals adequately staffed to handle the injured?					
7) Did plan exist to coordinate multiple victims with multiple hospitals?					
8) Was an emergency medical center set up for workers in hazard area?					
e. Radiological					
1) Was a RADEF analysis group required for this incident?					
2) Was a RADEF analysis group deployed for this incident?					
3) Was there sufficient staff for the needs?					
4) Was staff adequately trained?					
5) Were RADEF equipment needs adequately met?					
6) If a radiological incident, were dose records maintained for personnel?					
7) Were procedures followed for decontamination of response personnel?					

7. INDIVIDUAL/FAMILY ASSISTANCE - EVACUATION

a. Facilities					
1) Was a shelter systems officer assigned to the EOC?					
2) Were reception centers activated separate from any shelter?					
3) Were reception centers adequately staffed and equipped?					
b. Shelters					
1) Were facilities pre-designated?					
2) If not pre-designated, describe how shelter locations were determined.	*Write comments on back of this page.*				
3) Were shelters adequately staffed to provide mass care?					
4) Were evacuees checked for contamination?					
5) Was the facility capable of caring for the disabled?					
6) Was the facility capable of providing crisis counseling?					
7) Were there information sources and procedures to keep evacuees informed of events in the evacuated area?					
8) Was missing person assistance provided?					
c. Evacuation Management					
1) What Protective Action decisions were made? ____Evacuation ____In-Place Sheltering ____No Action ____Other:_____					
2) Who made protective action decision?_____					

EVALUATOR NAME:_____ DATE:_____

CORRECTIVE ACTIONS (C/A): P - Planning; T - Training; PE - Personnel; E - Equipment; F - Facilities

INDIVIDUAL/FAMILY ASSISTANCE - EVACUATION (Continued)

POINTS OF REVIEW	YES	NO	N/A	N/O	C/A
3) What was the basis of the protective action decision: ____D.O.T. Guidebook ____Computer Model ____Other:_____					
4) Were protective action decisions updated as situation changed?					
5) If a plume was projected, was location plotted and displayed?					
6) Were any preplanned protective action recommendations implemented?					
7) Were protective action decisions implemented in timely manner?					
8) Was the general public familiar with:					
a) Evacuation procedures?					
b) Evacuation routes?					
c) Collection points for evacuation?					
d) In-Place Sheltering procedures?					
9) Were resources and transportation adequate to implement actions?					
10) What special populations were identified to be impacted by decision? ____Transit dependent? ____Handicapped? ____Special Needs? ____Hospitals? ____Jails/Prisons/Detention Facilities?					
11) Were parents aware of evacuation policies for school children?					
12) Concerning evacuation of schools and/or special populations:					
a) Were enough buses (drivers) available to meet demands?					
b) Were procedures for contacting drivers followed?					
c) Was/were the correct evacuation route(s) followed?					
d) Were buses escorted by police to a relocation center?					
e) Were appropriate actions taken based upon plans/procedures?					
13) Was appropriate documentation maintained by shelter personnel?					
14) Was fire protection provided in shelters?					
15) Were law enforcement personnel assigned to each facility?					
d. Emergency Food/Water/Clothing					
1) Were shelter personnel given advanced estimates of expected arrivals?					
2) Were plans developed to deal with needs which exceeded capacities?					
3) Indicate areas where shelter deficiencies were observed: ____Parking ____Sanitary Facilities ____Food Supplies ____Personnel ____Cots/Blankets ____Drinking Water ____Storage ____Other:_____					
4) Did a system exist to organize, manage, coordinate and channel donations and services of individual citizens and volunteer groups?					

EVALUATOR NAME:_____ DATE:_____

CORRECTIVE ACTIONS (C/A): P - Planning; T - Training; PE - Personnel; E - Equipment; F - Facilities

8. PUBLIC SAFETY

POINTS OF REVIEW	YES	NO	N/A	N/O	C/A
a. Law Enforcement					
1) Was a law enforcement official in the EOC to coordinate LE assets?					
2) Did law enforcement officers arrive in a timely manner?					
3) Did responding personnel take appropriate hazmat precautions					
4) Were they familiar with their responsibilities under plans/procedures?					
5) Was an individual in charge? Name/Title:_____					
b. Fire Service					
1) Was a fire services official in the EOC to coordinate all fire assets?					
2) Did the fire service assist with warning the population?					
3) Were fire service personnel used as weather spotters?					
4) Was a staging area identified?					
5) Did the staging area adequately accommodate personnel and equipment?					
6) Were proper approach procedures followed to limit contamination?					
7) Were operational zones defined and access properly controlled?					
8) Were proper decontamination procedures implemented and performed?					
9) Was contaminated waste controlled and properly held for later disposal?					
10) Was spilled product effectively contained?					
11) Was emergency lighting needed/available?					
12) Were fire personnel properly equipped?					
13) Was all protective gear worn?					
14) Was the situation properly assessed?					
15) Were fire personnel able to effectively communicate with each other?					
16) Were established fire department plans and procedures followed?					
c. Search and Rescue					
1) Were rescue procedures implemented?					
2) Was adequate rescue equipment available?					
3) Were rescue personnel familiar with their responsibilities under plans?					
d. Evacuation (e.g. traffic control)					
1) Were traffic control points established?					
2) Was the number of personnel adequate to fulfill the needs?					
3) Was accurate protective action information provided to control points?					
4) Was protective action information provided to control points timely?					
5) Was site security established?					

9. PUBLIC WORKS

a. Repairs, construction, support					
1) Were public works/road commission assets required for this response?					
2) Were public works/road commission assets adequate to meet needs?					

EVALUATOR NAME:_____ DATE:_____

CORRECTIVE ACTIONS (C/A): P - Planning; T - Training; PE - Personnel; E - Equipment; F - Facilities

PUBLIC WORKS (Continued)

POINTS OF REVIEW	YES	NO	N/A	N/O	C/A
3) Were public works personnel familiar with their responsibilities under plans/procedures?					
4) Was a Public Works representative assigned to the EOC?					
b. Transportation					
1) Was one individual responsible for transportation assigned to the EOC?					
2) Were the transportation resources of the jurisdiction adequate?					
3) Were established transportation plans and procedures followed?					

10. RESOURCE MANAGEMENT

a. Elected/Appointed Official Support					
1) Were all appropriate elected/appointed officials present in the EOC?					
2) List elected/appointed officials not present:_____					
3) Did elected/appointed officials contribute to the direction/control function?					
b. Personnel Trained in Emergency Response					
1) Were personnel appropriately trained to perform their expected function?					
2) Describe training needs identified.	*Write comments on back of this page.*				
c. Were responding personnel familiar with the Emergency Operations Plan?					
d. Equipment Availability					
1) Was procurement of resources assigned to one person/group in EOC?					
2) Was resource data (resource manual; database) available in the EOC?					
3) Was resource data current?					
4) Indicate what information categories were listed in the resource data: ____Equipment and Vehicles ____Expertise and Services ____Facilities ____Supplies ____Additional Material ____Special HazMat Equipment					
5) Describe resource deficiencies.	*Write comments on back of this page.*				
e. Was succession of leadership adequately addressed in the EOP?					
f. Was there a predelegation of Emergency Authorities?					
g. Were Emergency Action Steps outlined in the plan/procedures?					
h. Were Emergency Action Steps used in this response?					
i. Does a plan/procedure exist for safeguarding essential records?					
j. Was protection of essential records discussed/implemented in this response?					
k. Is there a plan for protection of governmental resources/facilities/personnel?					

11. WARNING

a. Warning from EOC/Command Center					
1) Was public notification coordinated among involved organizations?					
2) Was content of instructional messages appropriate to the emergency?					
3) Was a log maintained of all instructions disseminated to the public?					

EVALUATOR NAME:_____ DATE:_____

CORRECTIVE ACTIONS (C/A): P - Planning; T - Training; PE - Personnel; E - Equipment; F - Facilities

11. WARNING (Continued)

POINTS OF REVIEW	YES	NO	N/A	N/O	C/A
4) Record times associated with the following actions: Decision recommending protective actions: _____ Decision to notify public of incident: _____ Activation of warning system: _____ Instructional message disseminated: _____ Follow up messages prepared and disseminated: _____					
5) Identify the alert/notification method used during this response:	Was this method effective?				
____Outdoor Siren	Yes		No		
____Emergency Broadcast System	Yes		No		
____Radio/TV Stations	Yes		No		
____Other:_____	Yes		No		

12. EFFECTIVENESS OF WARNING

POINTS OF REVIEW	YES	NO	N/A	N/O	C/A
a. What percent of affected population was effectively notified? _____%					
b. Were special needs populations/facilities addressed in alert/notification procedures? (Non-English speaking, hearing impaired, stadiums, malls, etc.)					

13. EXERCISE CONCLUSIONS

a. Was a meeting (involving all participants) conducted immediately after the exercise?					
b. Were comments from this meeting recorded?					
c. Did the meeting appear to be productive?					
d. Was a followup critique scheduled for a later date?					
e. Was the exercise adequately evaluated?					
f. Were evaluators' reports collected and reviewed?					
g. Was a formal evaluation report completed and submitted?					
h. Were the objectives of the exercise met?					
i. Is there an identified procedure in place to modify plans/procedures based on information developed during this exercise?					
j. Describe safety concerns noted during exercise.	*Write comments on back of this page.*				
k. Was the exercise an overall success? *(Write comments on back)*					

EVALUATOR NAME:_____ DATE:_____

CORRECTIVE ACTIONS (C/A): P - Planning; T - Training; PE - Personnel; E - Equipment; F - Facilities

APPENDIX C

ANNUAL REQUIREMENTS FOR A LOCAL PROGRAM

All EMD funded emergency management programs shall exercise annually. The local emergency management program is required to work with the EMD district coordinator in reviewing the needs of the community and determining exercise activities for a multi-year progressive plan. The number and type of exercises will be selected from the following list:

1. Orientation exercises
2. Drills
3. Tabletop exercises
4. Functional exercises
5. Full-scale exercises

Responsibility of the Local Emergency Management Coordinator

1. The local emergency management coordinator, by working with the EMD district coordinator, shall develop an appropriate long range strategy that develops and maintains the highest attainable readiness. The annual work agreement shall stipulate exercise activities which logically flow from that strategy.

2. Upon review and gathering of data from previous exercises and/or actual events, modify, adjust, and revise the progressive exercise plan.

3. Consult with the EMD district coordinator to verify that planned exercise activities, of the current fiscal year, meet and follow state program guidelines.

4. Consult with the EMD district coordinator to verify that annual exercise and evaluation activities meet the criteria for maintaining program eligibility.

Exercise Activity Reporting

1. The local coordinator will notify the district coordinator sixty (60) days prior to an exercise activity.

2. The local coordinator will provide the district coordinator with exercise activity documentation.

3. All exercise documentation is due within forty-five (45) days after the completion of the activity. An extension may be granted by the district coordinator.

Orientation exercise:

a. Thirty (30) days prior to an orientation exercise, the following documentation will be submitted to the district coordinator for review:

1. Goal (purpose)
2. Objectives
3. Plan/Problem/SOP to be discussed
4. Agenda
5. Individuals/Officials invited

(See item # 1, at the end of this section)

b. After completion of the orientation exercise, the following documentation will be submitted to the district coordinator:

1. List of participants or sign-in-sheet
2. Evaluation
3. Recommendations

(See item #2, at the end of this section)

Drill, Tabletop, Functional, and Full-scale exercises:

a. Thirty (30) days prior to one of these exercise activities, the following documentation will be submitted to the district coordinator for review:

1. Goals (Purpose)
2. Objectives
3. Types of exercise activity
4. Scenario
5. Function(s) to be exercised

(See item #3, , at the end of this section)

b. Upon completion of one of these exercise activities, the following documentation will be submitted to the district coordinator:

1. An exercise reporting form (i.e. 95-44, etc.)
2. List of participants
3. Evaluation
4. Recommendations

(See items #4-8, at the end of this section)

Actual Events Reporting

1. Local coordinators will document and evaluate response and recovery actions to events of emergency disaster.

2. Within forty-five (45) days of an event, the following completed documentation package must be submitted to the district coordinator.

    a. An exercise reporting form (i.e. 95-44, etc.)
    b. List of participants
    c. Event description (narrative)
    d. Evaluation of the response and recovery
    e. Recommendations

(See item #9, at the end of this section)

PRIOR TO THE EXERCISE **Item 1**

Orientation Exercise Activity

Date:_____

Township, City, or County:_____

1. Goal(Purpose) of the exercise:

_____
_____
_____

2. Objectives:

_____
_____
_____
_____
_____

3. Plan/Problem/SOP to be discussed:

_____

4. Agenda:

_____
_____

5. Individuals/Officials invited:

Name	Agency or Dept.
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Item 2

After an Orientation Exercise Activity

CHECKLIST:

- ☐ List of participants or sign-in sheet
- ☐ Evaluation
- ☐ Recommendations

PRIOR TO THE EXERCISE

Item 3

Date:_____

Township, City, or County:_____

1. **Goal(Purpose) of the exercise:**

   _____
   _____
   _____

2. **Objectives:**

   _____
   _____
   _____
   _____
   _____
   _____

3. **Exercise activity type**:

   _____

4. **Scenario:**

   _____
   _____
   _____
   _____
   _____
   _____
   _____
   _____
   _____

5. **Functions to be exercised:**

   _____
   _____
   _____
   _____
   _____
   _____
   _____
   _____

Item 4

After a Drill, Tabletop, Functional or Full-Scale exercise activity

CHECKLIST:

- ☐ Exercise reporting form(i.e. 95-44, etc.)
- ☐ List of participants
- ☐ Evaluation
- ☐ Recommendations

Item 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

EMERGENCY MANAGEMENT EXERCISE REPORTING SYSTEM

O.M.B. No. 3067-0248
Expires January 31, 1996

Paperwork Burden Disclosure Notice

"Public reporting burden for this form is estimated to range from 30 minutes for a limited exercise to 1 hour for a full-scale exercise, with an average of 45 minutes per response at the local level. At the State level, it is estimated to average 10 minutes per response to review input, and transmit to FEMA data recieved from the local level. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden, to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, S.W., Washington, DC 20472; and to the Office of Management and Budget, Paperwork Reduction Project (3067-0248), Washington, DC 20503".

PART I - GENERAL INFORMATION

1. JURISDICTION	2. EMA FUNDED JURISDICTON ☐ Yes ☐ No	3. STATE	4. STATE REGION

5. TYPE OF EXERCISE
☐ Tabletop
☐ Functional
☐ Fullscale
☐ Actual Occurrence — Exercise credit is being requested
☐ PresidentiallyDeclared?

6. FOCUS ON
☐ Response
☐ Recovery

7. DATES OF EVENT *(Month/Day/Year)*
Begin: ____ / ____ / ____
End: ____ / ____ / ____

8. HAZARD SCENARIO

Please enter **only one (1) P** for the ***Primary*** hazard and **one (1) or more S's** for ***Secondary*** type(s) of hazard(s)

NATURAL HAZARDS

___ Avalanche ___ Hurricane ___ Tsunami
___ Dam Failure ___ Landslide ___ Volcano
___ Drought ___ Subsidence ___ Wild Fire
___ Earthquake ___ Tornado ___ Winter Storm
___ Flood

NATIONAL SECURITY

___ Chemical/Biological ___ Low-IntensityConflict
___ Civil Disorder ___ Nuclear Attack
___ Conventional Attack ___ Terrorism
___ Increased Readiness

TECHNOLOGICAL/MAN-MADE HAZARDS

___ Dam Failure
___ Hazardous Materials-Fixed Facility
___ Hazardous Materials-Transportation
___ Power Failure
___ Radiological-Fixed Facility
___ Radiological-Transportation
___ Structural Fires
___ Transportation Accidents Air/Rail/Highway/Water

9. INDICATE NUMBER OF PARTICIPANTS IN EACH CATEGORY

___ Appointed Officials
___ Civil Air Patrol
___ Communications
___ Elected Officials
___ Emergency Management
___ Fire
___ Health & Medical
___ Human Services
___ Law Enforcement
___ Military
___ Mobilization Augment.
___ Private Industry
___ Public Information
___ Public Participants
___ Public Works
___ Radiological
___ School Personnel
___ Utilities
___ Volunteer Agencies

PART II - FUNCTIONS TESTED

EMERGENCY FUNCTIONS	EVENT RESULTS *(Circle) S-Satisfactory or NI-Needs Improvement*	CORRECTIVE ACTION REQUIREMENT(S) *(Check to show that a corrective action is required)*				
		Planning	Training	Personnel	Equipment	Facilities
1. ALERT NOTIFICATION						
Response/Recovery Personnel	S NI					
2. COMMUNICATIONS						
Telephone	S NI					
Radio	S NI					
Amateur Radio	S NI					

PART II - continued on the next page.

FEMA Form 95-44, FEB 93 REPLACES PREVIOUS EDITIONS OF FEMA Form 90-2 & CONSOLIDATED WITH FEMA Form 95-16

Item 6

PART II - FUNCTIONS TESTED *(continued)*							
EMERGENCY FUNCTIONS	**EVENT RESULTS** *(Circle) S-Satisfactory or NI-Needs Improvement*		**CORRECTIVE ACTION REQUIREMENT(S)** *(Check to show that a corrective action is required)*				
			Planning	Training	Personnel	Equipment	Facilities
3. COORDINATION & CONTROL							
Incident Command System	S	NI					
EOC Operations							
Direction & Control	S	NI					
EOC Facility	S	NI					
Alternate EOC	S	NI					
Emergency Power	S	NI					
Inter-agency Communications	S	NI					
Message Handling	S	NI					
Mutual Aid							
Personnel from Other Sites	S	NI					
Equipment from Other Sites	S	NI					
Effectiveness of Coordination							
Officials	S	NI					
EOC Staff	S	NI					
Emergency Support Services	S	NI					
Other Response/Recovery Personnel	S	NI					
4. EMERGENCY PUBLIC INFORMATION EFFECTIVENESS							
Prior to onset of the emergency	S	NI					
During the emergency	S	NI					
Immediate post-emergency period	S	NI					
Centralized public information activities *(e.g., Joint Information Center)*	S	NI					
De-centralized public information activities *(e.g., operating from different sites)*	S	NI					
5. DAMAGE ASSESSMENT							
Private Sector	S	NI					
Public Sector	S	NI					
6. HEALTH & MEDICAL							
Emergency Medical Services	S	NI					
Environmental & Public Health	S	NI					
Mass Casualty	S	NI					
Medical Facilities	S	NI					
Radiological	S	NI					

Item 7

PART II - FUNCTIONS TESTED *(continued)*							
EMERGENCY FUNCTIONS	**EVENT RESULTS** *(Circle) S-Satisfactory or NI-Needs Improvement*		**CORRECTIVE ACTION REQUIREMENT(S)** *(Check to show that a corrective action is required)*				
			Planning	Training	Personnel	Equipment	Facilities
7. INDIVIDUAL/FAMILY ASSISTANCE							
Effectiveness of Evacuation							
Facilities	S	NI					
Shelters	S	NI					
Evacuation Mgmt. (by St./Loc. officials)	S	NI					
Emergency Food/Water/Clothing	S	NI					
8. PUBLIC SAFETY							
Law Enforcement	S	NI					
Fire	S	NI					
Search & Rescue	S	NI					
Evacuation (e.g., traffic control)	S	NI					
9. PUBLIC WORKS							
Repairs, construction, & support	S	NI					
Transportation	S	NI					
10. RESOURCE MANAGEMENT							
Elected/appointed official Support	S	NI					
Personnel trained in emergency response	S	NI					
Personnel familiar with EOP	S	NI					
Equipment availability	S	NI					
Succession of Leadership	S	NI					
Predelegation of Emergency Authorities	S	NI					
Emergency Action Steps	S	NI					
Safeguarding of Essential Records	S	NI					
Protection of Government Resources, Facilities and Personnel	S	NI					
11. WARNING							
Warning (from local EOC or Command Center)	S	NI					
Outdoor Siren	S	NI					
Emergency Broadcast System	S	NI					
Radio/TV Stations	S	NI					
12. EFFECTIVENESS OF WARNING							
The public	S	NI					
Special needs population	S	NI					

Item 8

PART III- ACTUAL OCCURENCE DATA						
The following information is to be provided when requesting exercise credit for an actual disaster occurrence.	# Fatalities	# Injured	Number Evacuated	Number Sheltered	Est. Public Damage*	Est. Private Damage*
* Do not answer this question for Presidential declarations; FEMA will obtain the information from its own records.						

PART IV - STATE & LOCAL COMMENTS & SIGNATURES

COMMENTS: *(Add additional pages as necessary. When commenting on areas of improvement, include the Block Number of the Emergency Fucntion you indicated needs improvement and the following codes for the corrrective actions checked:* **P = Planning; T = Training; PE = Personnel; E = Equipment; F = Facilities.)**

PREPARED BY *(Signature)*	TITLE	DATE

STATE EXERCISE TRAINING OFFICER *(Signature)*	DATE

PART V - REGIONAL REVIEW

The actions taken during the actual disaster occurrence qualify for exercise credit ☐ Concur ☐ Nonconcur

Exercise credit is provided at the ☐ Full Scale ☐ Functional level

If there is a nonconcurrence or change in the level of exercise credit approved, detail will be provided in Part IV. State & Local Comments & Signatures above.

REGIONAL DIRECTOR *(Signature)*	DATE

Item 9

After an Actual Event

CHECKLIST:

- ☐ Exercise reporting form(i.e. 95-44, etc.)
- ☐ List of participants
- ☐ Event description (narrative)
- ☐ Evaluation of response and recovery
- ☐ Recommendations

APPENDIX D

MULTI-YEAR PROGRESSIVE EXERCISE PLAN

The local emergency management coordinator will work with the EMD district coordinator on developing a multi-year progressive exercise plan. This plan will be based on the needs of the community, in preparation for emergencies or a disaster. The plan would be "function" driven.

To assist with the formation of the plan, the first step is to collect information that will clearly identify specific issues that will need to be addressed. This information would come from:

a. past exercises
b. past events
c. skills in need of practice
d. functions that are weak
e. functions that are not exercised
f. new facilities, personnel, or equipment
g. Emergency Operations Plan (EOP) weakness or changes
h. need for role clarification
I. hazard and vulnerability analysis
j. recurring problems

The next step is to prioritize the needs with the most critical being first. As an example, if the list that was developed included: lack of training for damage assessment, breakdown of alert/notification system, a change in the Emergency Operations Plan (EOP), a new Emergency Operations Center (EOC), and a new hazard, you could prioritize them as:

1. a new hazard
2. a new EOC
3. breakdown of alert/notification system
4. change in the EOP
5. lack of training for damage assessment.

With this being done, the plan will now take shape as to how you will address each need by using exercise activities in a multi-year progressive program. As an example:

Need	**1st yr.**	**2nd yr.**	**3rd yr.**	**4th yr.**	**5th yr.**
New hazard	Orient.	Ttop	Drill	Func.	Fscale
New EOC	Orient				
Breakdown of Alert/Notification	Orient	Orient	Orient	Func.	Fscale
	Drill	Drill	Drill		
Change in the EOP	Orient	Orient	Orient	Func.	Fscale
Lack of training for damage assessment	Orient	Orient	Orient	Func.	Fscale
	Drill	Drill	Drill		

The different exercise activities can be done for one function, several functions, or all the functions, depending on the needs and the time that can be committed to the training. The importance of training with the functions, is the primary emphasis.

When we speak of "functions", there are the:

Emergency Management Functions

Direction and Control	Diaster Analysis and Assessment
Emergency Medical Care	Emergency Welfare
Evacuation	Fire and Rescue
Logistics	Public Information
Public Works/Utilities Repair	Radiological Defense
Security	Warning and Communication

or

Functional Annexes of the Emergency Operations Plan

The functions to be covered in annexes varies from juridiction to jurisdiction depending on such factors as size, governmental organization, and preparedness needs of the community. An example list follows:

1. Alert, Notification, and Warning
2. Coordination and Control
3. Communications
4. Damage Assessment
5. Individual and Family Assessment
6. Resource Management
7. Financial Management
8. Emergency Transportation
9. Information and Planning
10. Hazardous Materials
11. Evacuation
12. Mass Care
13. Emergency Welfare
14. Emergency Public Information
15. Health and Medical
16. Fire Fighting
17. Search and Rescue
18. Law Enforcement
19. Public Works and Engineering, etc.
20 Radiological

Additionally, the makeup and design of the plan, is up to the local emergency management coordinator working with the EMD district coordinator. It may be necessary to do several orientations the first year, or combinations of exercise activities can be done; but it should be progressive in nature and the plan will need to cover all functions that will respond in time of crisis. **(See Items 10-11)**

Multi-Year Exercise Program
Strategic Plan

Item 10

Purpose:

This matrix can be used as a tool to develop and implement a progressive exercise program.
Procedure:

1. Conduct an assessment of current functional readiness and determine which exercise activity(ies) would be most beneficial for each function based on current capabilities.

2. Summarize your assessment on the matrix below in the column FY1998.

3. Project activities for each function of each successive year, with the intent of increasing readiness to the highest practical level.

4. Based on your projections, determine when it would be most beneficial to conduct (a) full scale exercise(s).

Function	FY1998	FY1999	FY2000	FY2001	FY2002
Alert/Notification	D	F	T/FS	D/F	D
Communications	O/T	F	T/FS	F	T
Coordination/Control	O/T	T	T/FS	F	T
Emergency Public Info.		T	D/T/FS	F	T
Damage Assessment	T		T/FS	F	T
Health and Medical	T	F	FS	F	T
Individual/Family Assist.	O	F	FS	F	T
Public Safety	T	F	FS	F	T
Public Works	T	F	FS	F	T
Resource Management	O	F	T/FS	F	T
Warning	O	T	FS	F	D/T
Effectiveness of Warning	O	T	D	D	T

Summary of Projected Exercise Activities[2]

Fiscal Year	Orientations	Table Tops	Drills	Functionals	Full Scales
1998	6	6	1		
1999		4		7	
2000		6	2		1
2001			2	1	
2002		10	2		

[1] Assessment Codes: O (Orientation); T (Table Top Exercise); D (Drill); F (Functional Exercise); FS (Full Scale Exercise).
[2] Indicate the number of activities that could realistically be conducted in each category for each fiscal year.

Item 11

Multi-Year Exercise Program
Strategic Plan

County, Michigan

FY-1998: Several of the functions are currently not three deep. In this **fiscal** year the functions will be brought up to full staff. At the tabletop, staff with experience will mentor those new personnel coming into the EOC for the first time. Additionally, a drill will be held for the new damage assessment team. Training will be sought for new members.

FY-1999: All functions will be brought into the EOC, again we will work with the new members increasing their role in an actual setting. Again, a separate drill will be held for the damage assessment team. With training in place, this should be a positive experience for new members.

F'Y-2000: With new members securely in place we will test the ability of the EOC to switch personnel during an event. Again, a separate drill will be held for the damage assessment team.

FY-2001: A full-scale exercise is anticipated this year.

FUNCTION	FY-1998	FY-1999	FY-2000	FY-2001	FY2002
Direction/Control		O-F	O-F	O-FS	
Warning		O-F	O-F	O-FS	
Communications		O-F	O-F	O-FS	
Damage Assessment	O-TT-D	O-F-D	O-F-D	O-FS	
Public Information	O-TT	O-F	O-F	O-FS	
Law Enforcement	O-TT	O-F	O-F	O-FS	
Fire	O-TT	O-F	O-F	O-FS	
Public Works		O-F	O-F	O-FS	
Health Service		O-F	O-F	O-FS	
E.M.S.		O-F	O-F	O-FS	
Human Services	O-TT	O-F	O-F	O-FS	
Radiological					

Summary of Projected Exercise Activities

FISCAL YEAR	ORIENTATIONS	TABLE TOPS	DRILLS	FUNCTIONALS	FULL SCALES
1998	2	1	1		
1999	2		1	1	
2000	2		1	1	
2001	2				1
2002					

APPENDIX E

GLOSSARY OF TERMS

Actual Event — A "real life" occurrence of a natural or man-made hazard that requires the mobilization of emergency response personnel.

After Action Report — The formal written documentation analyzing the performance of assigned personnel after an exercise or actual event.

Agenda — The format for participants to follow, that lists the topic areas, time allowed, and presenters for an activity.

Annual Work Agreement — The document prepared by the local emergency management coordinator and EMD district coordinator, that describes the negotiated work items/activities to be completed by the local program.

Checklist — Written list of items that describe actions needed to be taken by an assigned individual or organization, meant to aid memory rather than detailed instruction.

Chief Elected Official — The official of the community who is charged with authority to implement and administer laws, ordinances, and regulations for the community. He or she may be a chairperson of a county board, mayor of a town or city, or supervisor of a township.

Community — A political entity which has the authority to adopt and enforce laws for the area under its jurisdiction. In most cases, the community is an incorporated town, city, village.

Contingency Messages — MSEL items that are associated with exercise objectives and a key event necessary to achieve that objective; they are prepared in case players do not take the anticipated action that is to be driven by that key event in a timely manner.

Control Cell — A location away from exercise participants that provides a facility for control and management of an exercise.

Controller — Persons whose role is to ensure that the exercise objectives are sufficiently exercised to permit evaluation, that the level of activity keeps players occupied and challenged, and that the pace(flow) of the exercise proceeds according to the scenario.

Controller Inject — The introduction of events, data, and information into exercises by a controller to drive the demonstration of the objectives.

Damage Assessment — The process used to appraise or determine the number of injuries and deaths, image to public and private property, and the status of key facilities and services such as hospitals, health care facilities, fire and police facilities, communication networks,

	water and sanitation systems, utilities and transportation networks, all resulting from a man-made or natural disaster.
Disaster	An occurrence of a natural catastrophe, technological accident, or human caused event that has resulted in severe property damage, deaths, and/or multiple injuries. Normally, wide-spread and beyond local governments capability and requires State, potentially Federal, involvement.
Drill	An event involving organizational responses to a simulated accident or emergency exercise activity to develop, test, and monitor specialized emergency skills that constitute one or more components(functions) of an emergency operations plan and procedure.
EMD District Coordinator	A Michigan State Police trooper assigned by EMD to a geographic district of Michigan in order to coordinate with local emergency management programs.
Emergency	Any occasion or instance where from natural or man-made hazards, that warrants action by local response agencies to save lives, property, and the environment.
Emergency Management Division	The division of the Michigan State Police whose purpose is to coordinate emergency management activities of county, municipal, state and federal governments.
Emergency Operations Center	The protected site from which State and local government officials coordinate, monitor, and direct emergency response and recovery activities; during and after emergency/disaster.
Emergency Operations Plan.	A document that describes how people and property will be protected in a threat of, or actual emergency /disaster. Detailing who is responsible for carrying out specific actions. Identifies the personnel, equipment, facilities, supplies, and other resources available for use in the emergency/disaster; and outlines how all the actions will be coordinated
Emergency Program Manager/Coordinator	An assigned or appointed member of local government who is responsible for coordinating the plans and operations of the various components of the emergency management system including governmental response units, volunteer agencies, and private resources.
Evacuation	The organized, phased, and supervised dispersal of people from dangerous or potentially dangerous areas.
Evaluation	The process of observing and recording exercise activities, comparing performance of participants against exercise objectives and noting strengths and deficiencies.
Evaluation Methodology	The procedures and strategy used to evaluate an exercise. This would include the structure of the evaluation team, objectives, and the evaluation packet.
Evaluation Team	A group of individuals formed to complete evaluation tasks for an exercise.

Evaluators Critique	A planned meeting of evaluators to collect and analyze exercise performance in preparation for completing an evaluation report.
Exercise	An activity that is a rehearsal of a simulated emergency, in which members of various agencies perform the tasks that would be expected of them in a real emergency exercise activity
Exercise Directive	A letter or memo from the chief elected official in a jurisdiction that is sent to agencies invited to play in an exercise. The directive is one means of gaining official support from those who should participate in the exercise.
Exercise Documentation	All information that is formulated and collected from the initial design planning of the exercise to the final After Action Report.
Exercise Enhancements	A list of resources that can be gathered to add "realism" to the exercise. This would include communications equipment, visuals, charts, computers, video, props, special equipment, and people.
Exercise Phase	Refers to pre-exercise, during the exercise, and after the exercise, as exercise tasks are organized.
Exercise Reporting Form	A document that is used to record specific exercise information on drills, tabletop, functional, and full-scale exercises; currently FEMA form 95-44.
Exercise Scope	Determining realistic limits on the personnel, agencies, and resources required to conduct an exercise activity, based on the needs assessment. This would include hazard, geographical area, functions, agencies and personnel, and exercise type.
Expected Actions	The actions or decisions that are anticipated of the players in order to demonstrate competence, based on the objectives of the exercise.
Follow-up Activity	After the evaluation of an exercise has been completed, certain items or issues will remain to be addressed. Normally, persons or committees will be assigned this task.
Freeplay	A spontaneous message inject, verbally or written, by a simulator or controller prompted by the performance or non-performance of the players.
Full-scale Exercise	An activity intended to evaluate the capability of emergency management systems over a period of time by testing the major portions of an emergency operations plan and organizations, under a stressful environment. This will include the mobilization of personnel, equipment, and resources, their actual movement, testing the coordination and response capability.
Function	Actions or operations required in emergency response or recovery, such as alert notification, communications, and coordination/control.
Functional Exercise	An activity designed to test or evaluate the capability of individual or multiple

	emergency management functions with a time constraint and normally in the Emergency Operations Center. This activity based on a scenario event, provides practice for players without movement of personnel or equipment.
Gantt Chart	A chart displaying the time and task schedule for exercise development.
Goal of an exercise	A determination of the purpose of conducting an exercise activity and what is to be accomplished.
Hazard	A natural or man-made dangerous event or circumstance that has the potential to lead to an emergency or disaster.
Incident Command System	A standardized organizational structure used to command, control, and coordinate the use of resources and personnel that have responded to the scene of an emergency or disaster.
Job Aids	A mechanism to provide short-term training for procedures, processes, and functions. This could include checklists, procedure lists, decision guides, forms and worksheets, and reference sources.
Joint Public Information Center	A central point of contact for all news media near the scene of a large-scale disaster or exercise.
Major Events	A list of big problems resulting from a disaster scenario which are likely events, based on case studies or operational plans, as it coincides with the exercise objectives.
Master Scenario of Events	List a sequentially linked list of events or requirements injected during an exercise to prompt player action to implement policies, procedures, and systems to achieve exercise objectives and support key events.
Message Controller	A person assigned to document the flow of messages into and out of the exercise playing area, and designating the proper destination of message traffic.
Messages	A means of verbal or written stimulus inserted into the exercise to achieve specific objectives.
Minor(Detailed) Events	Smaller problems within Major Events that are more specific in nature and normally require more functional response.
Mitigation	An activity or action that can eliminate or lessen the impact of hazards before or after an emergency or disaster.
Multi-year Progressive Exercise Plan	A document that describes the exercise activities, over several years, based on the needs of a community.
Mutual Aid Agreement(Pact)	A legal agreement between two or more local jurisdictions to aid each other in times of emergencies or disasters. This document signed by the heads of each government typically cover free access across boundaries, the provision of

	resources and services, the extent to which the resources will be provided, and other public safety actions.
Needs Assessment	A process of defining a community's inventory of problems or needs
Objective	A description of the performance expected from the participants in order to demonstrate competence.
Orientation	An exercise activity involves bringing together those with a role or interest in a plan, problem, or procedure. Participants are provided information through the use of lecture, film, slides or other visuals, or panel discussion. It is considered to be the foundation for emergency management exercises and begins the progressive exercise program.
Player	An exercise participant who is responsible for taking whatever actions are necessary to respond to a simulated emergency.
Player Critique	An open meeting or format for receiving feedback from players of an exercise activity for the purpose of discussing player performance and exercise experience.
Points of Review	Specific activities that must occur to achieve an exercise objective. They are based on analysis of plans, procedures, resources, and baseline legislation.
Preparedness	The planning activities that demonstrate how to respond in case an emergency or disaster occurs by working to increase resources, training of personnel, and exercising.
Purpose Statement	A broad statement of the exercise goal. It is used to communicate to those involved why the exercise is being conducted.
Recovery	The activities that will attempt to bring a community back to as near normal as possible. Short-term recovery involves re-instituting immediate needs of victims(food, power, sanitation, water, communications, and shelter ,etc.). Long-term recovery are activities or projects that will take considerable time to resolve(relocation of flood prone residents, rebuilding of a public facility, counseling programs, etc.).
Response	Activities that occur during and immediately following an emergency or disaster that is designed to provide emergency assistance to victims of the event and reduce the likelihood of secondary damage.
Rules of Play	Exercise instructions, written or verbal, for players that provide an orientation covering the extent of play, administrative and logistical matters, safety procedures, and other concerns of the exercise.
Scenario	A sequential, account of a simulated emergency or disaster providing the catalyst for the exercise. It introduces situations that solicit responses and allows demonstration of exercise objectives.

Scenario Narrative	The part of the scenario that sets the scene for an exercise to begin, consisting of a hypothetical emergency or disaster situation creating the need for emergency response.
Simulation Cell	Exercise control personnel who portray roles for agencies or personnel outside the exercise environment.
Simulation	A tool to create the perception of a situation, event, or environment which will evoke responses similar to those that a real emergency would prompt.
Standard Operating Procedures	A set of instructions constituting a directive, covering those features of operations which lend themselves to a definite, step by step process of accomplishment.
Tabletop Exercise	An activity in which key staff or other emergency management personnel are gathered together , informally, without time constraints, usually in a conference room setting, to discuss various simulated emergency situations. The focus is on examination and discussion of problems with resolution.
Time-jump	An artificial leap of exercise time frame to benefit the exercise play. It may be in hours, days, or weeks.
Timeline	A chronology of exercise events compiled to provide a frame of reference for exercise planning or evaluation of exercise performance with time sensitive issues.
Work Plan	A brief narrative format describing what will be accomplished through a period of time.

APPENDIX F

LIST OF ACRONYMS

AAR	After Action Report
ARC	American Red Cross
CAP	Corrective Action Program
CEO	Chief Elected Official
CEP	Comprehensive Exercise Program
CP	Command Post
DOD	Department of Defense
ECC	Emergency Command Center
EER	Exercise Evaluation Report
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EMC	Emergency Management Coordinator
EMD	Emergency Management Division, Michigan State Police
EMI	Emergency Management Institute
EPM	Emergency Program Manager
ETO	Exercise Training Officer
FE	Functional Exercise
FEMA	Federal Emergency Management Agency
FRP	Federal Response Plan
FSE	Full-Scale Exercise
FY	Fiscal Year
HAZMAT	Hazardous Material
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
JPIC	Joint Public Information System
LEIN	Law Enforcement Information Network
LEPC	Local Emergency Planning Committee
MCC	Military Command Center
MOU	Memorandum of Understanding
MSEL	Master Scenario of Events List or Master Sequence of Events List
NCCEM	National Coordinating Council on Emergency Management
NFA	National Fire Academy
NFIP	National Flood Insurance Program
NOAA	National Oceanic and Atmospheric Administration
NRC	National Regulatory Commission
NRT	National Response Team
NUREG	Nuclear Regulation
NWS	National Weather Service

OSHA	U.S. Occupational Safety and Health Administration
PAZ	Protective Action Zone
PDA	Preliminary Damage Assessment
PIO	Public Information Officer
POR	Points of Review
REX	Readiness Exercise
PPA/CA	Performance Partnership Agreement/Cooperative Agreement
SARA	Superfund Amendments and Reauthorization Act
SEMA	State Emergency Management Agency
SLG	State and Local Guide
SMART	Simple, Measurable, Achievable, Results-oriented, Task-oriented
SOG	Standard Operation Guidelines
SOP	Standard Operating Procedure
STO	State Training Officer
TT	Tabletop exercise

APPENDIX G

ACKNOWLEDGMENTS

Exercise Design Course, SM 120.1, FEMA, August 1995

Emergency Operations Center Management Course, SM 275, FEMA, July 1995

Independent Study, IS-1, The Emergency Program Manager, FEMA, September 1993

Independent Study, IS-120, An Orientation to Community Disaster Exercises

Michigan Emergency Management Public Act 1990, of 1976 as amended

Guide to Emergency Management Exercises, SM 170.2, FEMA, October 1997, reissue January 1989

Exercise Control/Simulation Course, SM 135, FEMA, July 1997

Guide for All-hazard Emergency Operations Planning, SLG 101, FEMA, September 1996

Disaster Exercise Manual, EMD Publication 702, EMD, March 1989

Exercise Program Manager, SM 137, FEMA, October 1997

Exercise Controller/Simulator Workshop, SM 250.8, FEMA, July 1997

Exercise Evaluator Workshop, SM 250.9, FEMA, July 1997

Exercise Evaluation Course, SM 130, FEMA, November 1992

Introduction to Emergency Management, SM 230, FEMA, 1995

SECTION II

SCENARIOS

NATURAL

Flooding

The weather in our State has been very unpredictable. The winter produced a higher than average water accumulation in our watershed. Two weeks ago heavy rains fell in areas north of us. After two days of rainfall, the ground was soaked and runoff became troublesome. In some communities public works departments are hard-pressed to keep storm sewers and intersections in low areas open. In the rural sections, some roads and bridges are in danger of being blocked by high water. Many small creeks and rivers are running bank-full, and many dam reservoirs are full to capacity. Weather service predicts higher than usual precipitation for the next two weeks.

12 hours later….

Heavy local rains in progress. Floodwaters have reached (Name) City and the (Name) River is out of its banks and levees, and rising fast. Radio and TV stations have been reporting the movement throughout the day, warning people to evacuate the low lands. Reports from nearby communities reveal that sections of their towns are under water, with raw sewage going into the river, and vital utilities out. The county sheriff's office reports 93 people are dead or missing, and requests help in evacuation of people and livestock from the flooded areas.

Dam Failure

The summer of 1999 had been similar to the summer of 1998. Plenty of moisture, in fact, almost too much. Bumper crops were harvested in small grains, hay, potatoes, and just about anything else a person could grow. A mild winter and abundant feed all summer looked good on both livestock and wildlife.

The month of September was no different then the rest of the summer. Rainfall has been unusually heavy throughout the month. Reservoirs are full and the ground is saturated, particularly in the southwestern portion of the State.

Last Thursday, Sept. 10, a storm containing very warm moist air and moved in from the southwest, releasing substantial amounts of rainfall in the (Name) Valleys and more in the surrounding higher elevations. Many streams and rivers ran bank-full over the weekend and reports of minor localized flooding in areas north and west of (area affected)were received.

By the morning of Monday, (date), National Weather Service forecasts included a prediction of very heavy rains over the next 36 hours, in the same general area as the preceding storm. A flood advisory is issued for the

The State Emergency Operations Center (EOC) was partially activated Monday afternoon at 1:30 p.m. by (authority)

The Governor called for full activation of the State EOC at 9:00 a.m. All department "points-of-contact" as named in the State Emergency Operations Plan were requested at 9:05 a.m. by (authority) to begin departmental call-down procedures and for a department representative to report to the State EOC as soon as possible.

Riverine Flood

Steady rain has been falling in the region due to a moisture laden low pressure system. Early into the storm, a Flood Watch was issued by the National Weather Service (NWS). Within ten hours after the rain began to fall, the NWS issued a Flood Warning for low-lying areas along small streams. Some roads had to be closed and a small number of residents had to be evacuated along overflowing streams.

At present, 16 hours have elapsed since the rain began. Based on reports from designated citizens with rain gauges, it has been learned that total rainfall across the jurisdiction ranges from 4.1 – 4.7 inches. The soil has reached the saturation point, thus causing extensive runoff. Designated river spotters, water level gauges, and/or electronic river rise warning devices indicate that the river has risen to a dangerous level.

The 24-hour forecast calls for continued rainfall, with a clearing trend possible. Based on this data, the NWS issues a Flood warning for areas along the river basin. Police report additional road closings due to high water, and a couple dozen more residents have been evacuated. Water levels are rising steadily, as a driving rain continues to fall.

Snowstorm Incident

The National Weather Service has issued a winter storm warning for the south central part of (area described), including (names) counties. Heavy snow, as much as six to twelve inches, is expected to fall in the next 24 hours. Strong winds will accompany the snowfall.

Twenty-four hours have passed. The snowfall was much heavier than expected. All roadside ditches are filled with snow and roads throughout the area are blocked with 12 – 20 inches of snow. In some low lying areas roads are blocked with snowdrifts as high as six to eight feet. Winds along with freezing drizzle have broken cross arms and downed power and telephone lines. In the city of (name), in (name) County, twelve feet high drifts are banked against the

garage doors of the fire department and at the intersections of streets other large snowdrifts extend all the way across the road.

Winter Storm

An unusual shift in the jet stream has bought freezing temperatures to much of the nation. At 0400 hours the National Weather Service (NWS) issued a winter storm and a traveler's advisory for (name) City. Freezing temperatures that are present in the city are causing the precipitation in the form of freezing rain, sleet, and/or snow.

At 0900 hours the NWS issued another major winter storm front is rapidly intensifying and moving toward the city from the north. The temperature has dropped to 30 degrees F, and heavy snow is predicted. Winds are expected to increase during the storm and reach speeds of 15 to 20 m.p.h., with higher gusts probable. The snow has begun to fall and will continue for at least several hours.

You have several major highways jammed with traffic and stranded vehicles. In addition, some power and telephone lines are down because of the heavy snow and high winds. Injured/sick people requiring emergency care and transport isolated by the storm. Citizens with four-wheel drive vehicles and snowmobiles are calling the communication center volunteering to drive people to hospitals.

The Emergency Operations Center has been activated.

Tornado

Tuesday, June 13, 1995, at 06:15 hours, the National Weather Service has issued a tornado watch for counties south of a line from (location) to (location). Numerous storms were reported moving off Lake (name). At 07:30 this weather statement was updated to a tornado warning for (name) Counties.

Shortly thereafter, a funnel cloud was sighted in the area of (name) Road and (name) Road, moving in a northeasterly direction. At 07:50 hours, a tornado passed through (name) Township, touching down at several locations. Emergency units have been dispatched for search and rescue. Initial reports indicate there had been heavy damage with numerous injuries. No fatalities have been reported at this time. The E.O.C. has been activated.

Tornado

The National Severe Storms Forecast Center in Kansas City, at (Fill in the blank) p.m., CST , has issued a **Tornado Watch** for the entire state of _____ from 12:15 p.m. until 7:00 p.m. Tornadoes, large hail and locally damaging thunderstorms are possible.

At 1:30 p.m., the National Weather Service issued a **Severe Thunderstorm warning** until 7:00 p.m. for the _____area.

At 1:45 p.m., the National Weather Service issued a **Tornado Warning** for (Fill in the blank)parts of_____. Funnel clouds have been reported near _____. The accompanying high winds, rainfall, hail, and flooding appear to be the most severe the area has encountered for several years.

At 2:10 p.m.**,** a local weather spotter reports a tornado has been sighted on the ground 12 miles southwest of the city. Within minutes, the police/sheriff department dispatchers are flooded with calls saying a tornado has touched down in the residential area.

Tornado Touchdown

The National Weather Service and local weather spotters have reported tornado touchdowns in the Village of (name) Initial reports indicate that dozens of homes and businesses have been damaged from the storm. The emergency operation center has been activated. Reports are coming that the tornado struck (name) Mall and that 63 people are dead and hundreds are injured and trapped inside the mall.

The local high school was in the path of the tornado and extensive damage occurred to the south wing of the building. School was in session at the time of the touchdown, with no reports of injuries. The local utility company has requested assistance in turning off electricity, gas, and water to the affected areas.

Calls are coming into the emergency operation center from outside sources inquiring about how can they help and the telephone system is overwhelmed.

TECHNOLOGICAL

Hazardous Materials

(Company name) Chemicals, Inc., produces a variety of acids for sale as intermediates to other chemical manufacturers. Lakeside stores and handles a wide variety of chemicals on-site, both for process use and in storage for shipment to customers.

(Name) plant is located in a neighborhood, which is primarily industrial in nature. There are several other industrial plants nearby as well as a number of warehouses. The warehouses are adjacent to port facilities along (name)River, which carries a significant volume of barge and recreational boat traffic. plant is adjacent to a spur of the (railroad company) Railroad on the north; warehouses on the south and east; and a metal plating facility on the west. Kennedy Boulevard and Eisenhower Avenue, both major arterial streets, intersect one block from the plant gate. Just across the (name)tracks is the (name) Airport, which provides commuter service to the major airport in the region. (Name) River lies a quarter-mile to the east. The nearest dense residential neighborhoods are two miles distant to the north and west.

At 3:30 on a drizzly weekday afternoon, a charter plane carrying 6 people takes off from the (name) Airport. The plane experiences engine trouble and fails to achieve sufficient altitude. The pilot attempted to make an emergency landing on vacant land within plant property. After safely touching down, the plane collides with a pipeline carrying sulfuric acid from a storage facility to the (name) rail spur for loading on tank cars. The plane flips over and catches fire 100 yards from the pipeline. The pipeline immediately begins to spew acid, which comes in contact with rain puddles that have formed over two days of rainy weather. Winds are light and blowing from the south.

Hazardous Materials - Facility

Hot humid weather conditions plagued (name)City and the vicinity over the past several weeks. Record high temperatures in the low 100's in the daytime have stressed city emergency responders. Just last week city police officers suppressed a potentially riotous situation in the midtown area of (name)City. Low temperatures at night were only reaching 80º. The 5-day weather forecast predicted "more of the same"!

Shortly before the 7:00 a.m. shift change at the (company name) Plastics Company, located at the intersection of (location) Streets in (name) City, two workers were finishing the task of transferring allyl alcohol from a non-pressurized rail car to a storage tank inside a warehouse. They had allowed the transfer pump to operate unattended for about ½ hour during a break at 6:30 and found upon their return that an automatic shutoff failure had resulted in a spill of 150-200 gallons of product. Vapor from the allyl alcohol irritated their eyes, noses and throats. One

man switches on the emergency ventilation system while the other uses a water spray to direct the residual pool of product into a floor drain. Both men report to the plant's dispensary where they remain until the symptoms subside.

The spill was not reported to the shift supervisor until 8:45 a.m. The supervisor was concerned, based on the properties of allyl alcohol, that toxic and explosive concentrations of the product may accumulate in the drainage system or other confined spaces. The supervisor notified the plant manager at a Rotary Club breakfast in Fisherville. The plant manager, fearing a disaster at his plant or in the adjacent area, requested that the spill be reported to the fire department. It is reported as a chemical spill at (name) Plastics with a HAZMAT team and Chief due to respond.

Hazardous Material - Facility

The (name) Fertilizer Company manufactures a variety of fertilizers for sale in the retail market. Their (name) Township plant specializes in ammonia-based fertilizers, which are produced and trucked to (company name) regional distribution centers around the country.

(Company name)plant is located ten miles outside (city or village name), a major regional trading center. (Name) Township is sparsely populated and is characterized primarily by a mix of agricultural and light industrial land uses. Along the western boundary of the plant is (name) River, which serves as the major source of drinking water for (city or village name). In the immediate vicinity of the plant are a large truck stop along an interstate highway, 150 yards east of the plant; and a county farm labor housing project, 300 yards south of the plant.

At 10:00 a.m., on a blustery winter weekday morning, plant workers hear a loud noise coming from the vicinity of a pipe carrying Anhydrous Ammonia from a 10 ,000 gallon storage vessel into the building housing the fertilizer manufacturing process. The pipe has ruptured, resulting in the rapid flow of product onto the ground. Although the Ammonia is rapidly vaporizing, it has also begun to pool. The weather is relatively warm, due to a temperature inversion. Winds are blowing out of the northwest at 15 m.p.h. and gusting.

A plant worker walks out of the plant building to investigate the noise. Seeing the leaking ammonia and smelling fumes, the worker quickly retreats inside the building and radios the plant safety manager. The plant manager in turn radios the plant emergency response team to report for duty, and calls the (name)Township Fire Department to request back-up assistance.

Hazardous Material – Train Derailment

(Company name)Transfer Depot, Inc., facilitates the transfer of various bulk commodities from trains to trucks for local deliveries within the (name) City metropolitan area. (Company name) specialty is the bulk handling of petroleum and hazardous substances.

(Company name) facility is located adjacent to a regional train yard. (company name) facility and the train yard itself are bounded by an interstate highway, which serves as a commuter route

between (name) City's outlying suburbs and its Central Business District (CBD), and (name) Creek, which is a tributary of (name)River, which in turn flows through the CBD. The neighborhood surrounding the depot and train yard, which are 3 miles from the CBD, is primarily a run-down industrial/warehouse district. On the opposite creek bank, however, is a large mobile home park primarily populated by elderly and low-income people.

At 6:00 on a warm summer morning, an (company name) delivery truck carrying a full load of 55-gallon drums containing various petrochemical products accidentally collides with a slow-moving train towing 2 tank cars of liquid chlorine. Both tank cars derail, with substantial denting and a puncture occurring to one, resulting in a rapid leakage of chlorine. The truck overturns, spilling and rupturing many of its barrels with a resulting leakage of a significant quantity of petrochemicals. Light, directionally variable winds begin spreading chlorine fumes. Liquid chlorine and petrochemicals begin to mix on the ground.

A truck driver who witnesses the accident from a distance, notifies the manager on duty. The conductor of the train, although shaken and suffering eye irritation due to chlorine fumes, is able to rescue the truck driver, who has been overcome by chlorine fumes, dragging him away from the accident site. The exertion of the rescue and additional exposure to the fumes finally cause the conductor to pass out. Both men are looked over by a skeleton crew of depot workers. Realizing that both the truck driver and conductor are unconscious, and seeing evidence of skin burns, the depot manager calls 911 to ensure that emergency medical personnel and hazmat units are summoned.

Hazardous Material – Ship Collision

At 0300 hours Sunday September 13, the 350-foot tank vessel **"**Geraldton**"** was inbound for Thunder Bay from Calumet loaded with 64,000 barrels of diesel fuel and gasoline. The vessel was navigating to the west end of Isle Royale and on to Victoria Island, when it collided with the Duluth bound roll-on-roll-off rail-car ferry, the Beardmore".

The impact of the collision caused severe damage to the starboard side of the tanker and the bow. The two vessels drifted apart, each assessing their damage. The ship begins to twist to the starboard side causing several rail cars to become unsecured and collide with each other. Chlorine gas escapes and disables many people. The tanker team meanwhile decides that the most prudent thing to do is to seek shelter from the coming storm and assess damages in Pigeon Bay. Product from the wing and center tanks is released to the pristine waters of Lake Superior. An immediate assessment of the situation by the tanker crew determines that about 15,000 barrels have been released and another 10,000 barrels are in danger of being released.

A SAR incident is declared and subsequently becomes a major pollution incident affecting Canada and the United States. Upon notification by Thunder Bay Coast Guard Radio, the Rescue Coordination Center at Trenton tasks the 44-foot lifeboat **"**Westfort**"** from Thunder Bay to the scene. After the lifeboat arrives at the scene of the incident, radio contact with the **"**Westfort**"** is lost.

RCC then tasks the Canadian Coast Guard ship "Samuel Risley" to the scene. At the same time a flight mission is ordered for information gathering purposes.

Hazardous Materials Train Derailment

At 0900 hours, the emergency dispatch office receives a report of a building fire and dispatches the units for a standard building fire response. The first units on the scene confirm a fire and advise the dispatch office that all responding units will be held for quite some time.

At 0915, a freight train that is traveling through town encounters a loose rail causing the derailment of the two locomotives and the next 18 of the 87 total railcars. Diesel fuel tanks on the locomotives have burst open and have caught fire. The derailed cars include six flatcars carrying lumber, four boxcars with unknown contents, three boxcars carrying tires; two tankcars with liquefied petroleum gas (LPG), two tankcars carrying chlorine, and one tankcar with acrylonitrile.

Most of the derailed cars have vapor clouds coming from their domes. Within minutes, the leaking propane vapors have flashed from the burning diesel fuel and have engulfed the scattered lumber as well as the two LPG cars. Fire from the LPG cars is heating the contents of the unbreached car holding the acrylonitrile. The Town of (name) is 27 miles Southeast from the derailment and the winds are blowing at 4 m.p.h. from the west, causing the chlorine vapors to draft towards the residences in the closest residential area to the accident site.

There have been some reports of several residents that have fallen, victim to the chlorine vapors. At 0930 hours, emergency care personnel request that additional ambulances, fire/rescue, and police units be dispatched to assist. They advise that personnel will need protective gear in order to perform rescues. At this time, dispatch has initiated the emergency notification procedure to activate the emergency operation center.

Human Related – Air Crash

A Boeing 747, bound for China from _____Airport, flying at 37,000 feet, develops engine trouble. The pilot intends to attempt a landing at nearest international airport with a runway that would provide the necessary landing requirements. Within minutes, the pilot radioes that the plane has lost power and is in rapid decent. The nearest airport is _____ Airport, in _____. Even though this airport is too small, the pilot determines to attempt a landing.

Conditions at the airport are currently mostly cloudy with a light and variable wind. However, a line of thunderstorms are approaching the field from the _____. (direction) . Airport tower control has alerted Crash/Fire Rescue units and contacted other emergency services units for additional fire, medical, and law enforcement support.

Further communications with the aircraft has been garbled but indicate that two right engines have dropped off the plane at 8,000 ft. and all hydraulic systems have failed. As the plane decends to 6,000 ft, it collides with a smaller DC-10, wings impacting , that departed _____Airport bound for _____. The pilot of the DC-10 turns back for the airport while the 747 circles _____(town or village) and crashes into _____Bay skidding across _____state highway, bursting into flames and breaking apart. The impact gouges completely through the highway, across the _____golf course and into the condominiums.

The DC-10 attempts a landing but cannot maintain direction and crashes into an empty airplane hanger. Fire breaks out immediately under the plane.

Heavy damage, many dead and injured at the 747 crash site as emergency services are arriving. A heavy fuel slick is evident in the bay.

Human Related – School Bus Accident

A field trip for the 5th grade students at _____Middle School has been planned for months. At 9:00 a.m. they depart the school for _____, and the Greater _____Zoo. The weather is cloudy with a slight drizzle and temperature hovering around the freezing mark (32 degrees F). As the bus makes its way through the _____ Parkway, at 25 m.p.h., the bus slides off the road striking a culvert and overturns on to its right side. Over 60 students are on board, some of them severly injured. Others students and teachers are trapped by those injured. A passing motorist called 9-1-1 from their cellphone and with other motorist stopping to give aid, traffic is becoming blocked. Emergency services units have been sent to the scene with additional support units from law enforcement, fire and rescue and EMS called in. A state police trooper arrived first on the scene and established incident command.

Human Related - Hostages

Two suspects has entered the (company name) Grocery Store at (name and number) Street. Several shots have been fired. An employee inside the store has locked herself in the second floor rear office where she can see the front half of the store. The caller is hysterical and is reporting that a white male, armed with a rifle, has some employees and a number of customers in the bakery area of the store. He has them sitting in a corner while holding their hands to their heads. She reports that the suspect is pointing the rifle at the people and threatening them with it.

911 Communications now advises that the caller from the store is reporting the suspect has shot two men inside the store. She has hung up and 911 is concerned that calling back might make the suspect aware that one or more people are hiding in the store.

Human Related – Bomb Scare

At about 6:30 p.m. on Friday evening, December 9, an unidentified caller reported plating a bomb at (company name) Plaza. The plaza continued over 7 stores and was very busy due to the Christmas shopping season. There are three ingress and egress points at the plaza:

Mall management immediately called the _____ police department to report the incident and ask for their assistance. Because the caller sounded like a teenager, the mall manager wasn't sure if the threat should be taken seriously or not. If so, they would need help in evacuating the large number of shoppers without causing a panic.

About an hour after the report, a suspicious device was discovered in the video arcade.

Human Related – Child Missing

At 10:42 a.m., a mother reported that her 10-year-old daughter, Susan, set off on her bicycle to ride to a friend's house just one quarter of a mile from home. Susan planned to ride through the woods on a dirt bike path roughed out by her brother and some of his friends.

At approximately 3:45 p.m., Susan's mother called her daughter's friend to ask Susan to come home. She was told that Susan was not there and had not visited that day. Frantic, she walked the bike path, where she found Susan's abandoned bike and one sneaker. She then drove down the road looking for Susan. When there was no sign of her daughter, the mother called the police. The child has been missing for five hours. It is a sunny October day; the temperature is in the upper 50's and is expected to drop to about 40 by nightfall. The neighborhood is located in a town with hills and is surrounded by woods. There is a large, swampy pond located about 500 yards into the woods.

Attack

Terrorism – Weapons of Mass Destruction

Today at 10:30 a.m. the governor had just finished his briefing on the upcoming State of the State address when a bomb exploded on the second floor in the State Capitol Building. First arriving fire fighters and
EMS units observed numerous individuals evacuating the building and at least three individuals experiencing seizures on the front lawn of the Capitol. Additional victims were having difficulty breathing, and began to lose muscle control. There was no obvious fire. More additional emergency response units have been called in. The state police bomb squad has been notified and are mobilizing to support the response.

Terrorism- Weapons of Mass Destruction

At 8 p.m. on Friday, August 14th, the 911-dispatch center received a call from the manager of a national one-stop shopping mart located on the edge of town. The manager excitedly reported "approximately 10-15 customers near the rear of the store are having trouble breathing and some are vomiting".

The first arriving ambulance crew witnessed a large number of people exiting the store with severe eye irritation, coughing, and vomiting. No one knew what the source of the problem might be. This occurrence closely followed several minor incidents involving property destruction at this and other similar stores nearby.

Terrorism – Weapons of Mass Destruction

The duty nurse in the local hospital emergency room telephoned the 911 emergency dispatch center at 7:30 p.m. on April 23rd to advise they had received nine persons with similar symptoms in the last 24 hours. Patients primarily complained of severe cramps and diarrhea. Several of the patients had been transferred to a major specialized facility (for diagnosis) after all attempts to render aid for the patients failed. Numerous additional telephone calls for assistance have been received at the medical facility in the last 2 hours requesting guidance for comparable symptoms. Further investigation has revealed that all patients are employees of the 36th District Court. Additionally, all had attended an April 19th Easter luncheon at the community center.

Terrorism – Weapons of Mass Destruction

On Saturday Nov. 14th at 6:30 p.m., motorist using a cellular phone called the bridge officials and reported a fire in the northbound lane in the center of the bridge. Officials, following established protocol, dispatched both _____city fire departments as well as bridge enforcement vehicles. Responding firefighters from _____City noted heavy traffic at a complete stand still in the northbound lanes. As they approached they observed a small propane torch placed strategically under a 2-gallon metal bucket on the east edge of the northbound lanes. The wind was out of the northeast at 3-5 mph. Three people were lying unconscious on the bridge near the bucket, which appeared to be emitting steam.

Terrorism – Weapons of Mass Destruction

There has been a reported explosion at a medical research laboratory that has been the site of several demonstrations by animal rights groups and anti-war groups. The explosive was detonated in the building's basement, causing moderate damage. Most of the individuals inside the building have begun evacuating as instructed, however several have remained to help stabilize the scene. After being inside the building for some time, several police and firefighters mysteriously collapse. In addition, several of the remaining researchers are found slumped over their desks, and are determined to be in either cardiac or respiratory arrest. Their conditions do not improve with treatment. Others nearby do not appear to be affected. More emergency response units have been mobilized to the scene.

Terrorism - Weapons of Mass Destruction

A white supremacist group is conducting a permitted demonstration march in (name of city, town, or village) Local law enforcement departments prepared for the march and staffed the parade route sufficiently, implementing an incident command system. Among the items on display during the march is a small float entitled "Get on the Right Race Train" . The float featured a steam engine that periodically belched out sooty particulate matter over the course of the parade route. Curiously, the marchers were hooded and appeared to be wearing rubber masks. The previous day's newspaper indicated the marchers were concerned about potential police brutality and the use of tear gas to disrupt their right of free speech. Two days later, the local hospital has reported an overwhelming number of patients displaying symptoms of pneumonia and in some cases, respiratory failure. The media has picked up on the story and radio/television airplay is increasing.

Power Failure

Today is clear and cold as commuters head for work and school buses are in route on what appears to be an ordinary day. A sudden power failure occurs, disruption service throughout the area. Traffic in business areas jams at intersections where signals have ceased to function. Gas

stations cannot pump gas. Telephone lines are jammed with calls to the power company and the local government is reporting the problems.

The problem is not local. Associated press and United Press International report through stations still functioning on generator power that the outage spreads from Maryland to South Carolina. Early reports indicate that electric transmission lines along the East Coast have been systematically destroyed by synchronous explosions. The extent of the damage is unknown. Power company spokespersons indicate that there are no accurate estimates on when service can be restored; the outage is expected to continue for days until survey teams have located and physically inspected the damaged sites and can begin to make repairs. Efforts will be made to reroute service as soon as the scope of the damage is assessed, but full system recovery could take weeks or even months.

White House spokespersons are declining to comment until press briefing at 10:00 a.m. All facilities without emergency generators are currently inoperable. Water treatment facilities cannot maintain normal operations; insufficiently treated wastewater is being discharged into rivers throughout the stricken state. Municipal and county systems, which use pumping systems for potable water, cannot maintain normal flow, so drinking water is in short supply. Facilities operating on generators face the problem of securing additional fuel. Schools are closing and sending students home before noon. Hospitals are concerned with obtaining generator fuel for emergency systems as well as with obtaining potable water.

By 9:30 a.m., calls are pouring in from citizens asking for help in coping with lack of heat; many are from mother with small children or from elderly residents who are in the greatest danger of hypothermia.